THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment and Administration of Hospitals, Sanatoriums and Allied Institutions, and to Their Medical, Surgical and Nursing Services

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BETTERING THE SERVICE OF STATE HOSPITALS*

THE mind that has lost itself; to what is it entitled in the way of care and treatment? The mind that is losing itself; to what is it entitled in the way of protection from disaster?

If the question were, what does the mind that has lost itself get, we should have to answer that this depends upon the state in which the mind lives. It may be liberty with medical care; treatment guided by intelligent reeducational methods; genuine hospital attention, with all that is implied in that broad generalization. Or, it may be imprisonment in straps and irons in a dungeon, with no medical attendance; or idleness with brutality and cruelty, representing mental, moral and physical decay.

But the mind that is losing itself? For it, there is some encouragement in progressive states in the activities of mental hygiene societies, mental clinics and dispensaries. These, however, too often are pinched for money and must depend upon private resources to do that which we have been accustomed to believe is the duty of the state.

State Hospital Standards Differ

It requires only a cursory survey of the situation to grasp the fact that there are at least forty-eight different standards—if they may be dignified by that term—of care and treatment of the so-called insane and feeble-minded. Even in the same state there may be as many different state hospital standards as there are state hospitals. Some states are interested in the problem of their mentally sick; others are dull to the plight of these sufferers and still others consider them with slight Christian sympathy.

Mental disease is one thing in one state, quite another in the next state, and still another in the third. The mental patient is fortunate to be a resident of one state. He is to be pitied above all men if he is the resident of a neighboring state.

But in those states that do the best by these types of sick there is failure, deep and humiliating. Their insane are crowded and packed into wards and dormitories; hundreds of them are idle throughout the year. After medical science has given them what it can, they are filed away and seldom referred to again. The pressure of the onrushing multitudes crowds the older residents farther and farther into the dark background. There is theory as to what should be done for them but of practice there is not much.

Stunned and incapacitated by the effects of the war, states and institutions which had embarked upon a program of betterment in the care of their mentally sick now mark time or slip behind. They lost morale; their organizations in all lines were broken up. Their medical staffs were depleted to meet the demands for neuro-psychiatric service at the front. Many of these men did not return to their old places, and the vacancies have not been filled because there is no reserve. The medical schools are not furnishing new blood; indeed they seem, as a rule, no more inclined than before to give attention to the mental diseases.

States confronted with organized demands from innumerable sources, created by the war, have yielded to these demands, whose insistence and persistence have been crowding the state hospitals and state charities into the background where they will remain until those who understand them and are their friends are able to resume that mili-

*This is the first of a series of articles on state institutions for the mentally ill which will be prepared under the direction of a special committee of the editorial board of The Modern Hospital, in cooperation with the National Committee for Mental Hygiene and Mr. A. L. Bowen, former superintendent of charities of the department of public welfare of the state of Illinois. Since the March issue is the annual building and equipment number, the next article of this series will not appear until April.

tancy and aggressiveness with which they were making such headway when the war broke upon them. These institutions must be brought back into the public, the legislative and the political eye.

Sees Improvement in Past 30 Years

Mr. Homer Folks, for many years secretary of the New York State Charities Aid Association, which has done so much to bring the state hospitals on New York State to a high development, and who is now president of the National Conference on Social Work, following a brilliant service with the American Red Cross in foreign lands, has stated the case with unusual clearness and brevity. In a letter to THE MODERN HOSPITAL, commenting on its decision to inaugurate a campaign to elevate the standards of state hospitals, he says:

"One can look back over the accomplishments of the past thirty years in caring for the insane with considerable pride. In New York state, and in many other states, this period has witnessed the development of genuine hospital care and treatment for all those suffering from mental diseases, as contrasted with the asylum, jail and almshouse care, or lack of care, which prevailed before this time. That these modern state hospitals have been able to return to the community a substantial proportion of their patients has proved the value to the state of making its work curative rather than custodial.

More Emphasis to be Placed on Prevention

"The next step, that of establishing out-patient clinics in connection with the state hospitals, for the purpose of preventing mental disease by treating such individuals as are beginning to break down under the increasing strain of repeated failure to adapt themselves successfully to the problems of daily life, has not only been significant in its results, but has paved the way for still further efforts of prevention in connection with the great social problems of delinquency, crime, dependency, unemployment and industrial unrest, and is in line with our present-day efforts to achieve for all an adequate standard of mental health. That mental diseases, like physical diseases, have definite causes and that through a knowledge of these causes there is hope for prevention and cure, is the message of the mental hygiene movement.

"Conditions following the war have resulted in a general retardation of the progress made by the New York state hospitals for the insane, if not in an actual reversion to lower standards. The extent to which this question exists in other states, together with a statement of the way in which such conditions are being overcome, would be of interest and benefit to all those interested in the problem. The series of articles on the subject of mental hygiene which begins in this number of THE MODERN HOSPITAL, should be effective in helping the various states to secure such medical treatment of the mentally disturbed as will insure the return to useful citizenship of the greatest possible number."

Mr. Folks confines his observations to New York but they may be applied with equal force to all other states that were making a sincere effort to improve the situation before this country entered the war.

$308,000,000 in Housing the Insane

Mr. Horatio M. Pollock, statistician of the New York State Hospital Commission, acting with the National Committee for Mental Hygiene, issued in 1921 a compilation of the statistics from twenty-six states. The twenty-seven state hospitals in these states averaged more than half a million dollars in expenditures for maintenance alone during the year. The general average per capita cost of maintenance was $315.28. The average population during that year of these seventy-seven institutions was 110,978. The total maintenance, therefore, was approximately thirty-five million dollars. It would be safe to double this to get an accurate estimate of the cost of all the state hospitals for insane in the United States. Large sums should be added for new buildings and permanent improvements. No account is here taken of the cost of those institutions which house the feeble-minded, the epileptic, the delinquent of all ages, the poor farms and the jails, all of which are so very markedly impregnated with the mental disorders that they should be considered a part of this problem.

The seventy-seven state hospitals reporting represent an average investment of two million dollars, or one hundred and fifty-four millions in all. Multiply this by two and we have three hundred and eight million dollars permanently invested to "house"—we use the term "house" advisedly—more than two hundred thousand men and women whom we popularly stigmatize as insane, and are disposed to classify as hopeless and helpless, entitled only to food and raiment during their natural life.

General Hospital Conditions Never So Bad

Conditions which existed in general hospitals throughout the country and were responsible for the great standardization campaign were in no wise as deplorable and humiliating as those which,

on an average, prevail today in our state hospitals. The time has come when America, having regard for her good name as a humanitarian, demands that active and determined steps be taken to improve the institutional care and treatment of mental patients, and that means be adopted to treat mental diseases at a point where they may be halted and turned back.

Must Combat Public Indifference

The slight attention given to mental diseases in medical education, the indifference of the medical profession to these maladies, and the neglect by the public of those who have been stricken, call for counter action.

To whom must appeal be made? Manifestly to the hospital and the medical world. It alone can arrest attention and challenge present policies.

The campaign which is succeeding so well in establishing minimum standards in general hospitals gives encouragement that equally good results may be accomplished in state hospitals. The problem is a different one, to be sure. It must be approached from different directions. Another kind of tact and diplomacy must be invoked, but but there appears to be no serious obstacle in the way of building up in the United States higher ideals of state hospital service.

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America has always been sympathetic toward the plight of the unfortunate. She has never failed when appealed to on behalf of the suffering. The more advanced states have not been niggardly in their support when they have had confidence that their funds for state hospitals were being applied intelligently and honestly.

Pre-war interest in this subject must be revived in those states which were advancing. Their example must be used upon the less diligent and the more inert.

The decision of THE MODERN HOSPITAL to inaugurate this campaign, and to carry it on through a long duration if necessary, has received most gratifying response from hospital men and women, from leaders in the medical profession and especially from those who have worked and are working so hard in the state hospital field under most discouraging conditions.

It is not proposed to suggest standards at this time. The first part of the campaign will be devoted to the situation as it exists, and to the principal problems which seem to require solution before medical standards may be thought of. The second part will be a review of one or two of the best state hospitals and of a few of those which are specializing with good results along certain lines. Third will come constructive suggestions and recommendations by experts in various departments in state hospital organization. Out of these three stages will develop quite naturally what may be considered a minimum standard which will justify any state hospital or state in claiming a place among humane agencies; in other words, a standard of mental hospital care and mental hygiene methods that may be comparable with that which is recognized in the care, treatment and consideration of physical diseases.

The promise of THE MODERN HOSPITAL that its campaign will be systematic, that it will not be sensational nor an exposé, that it will offer no criticism until it is ready to suggest a substitute for the thing criticised, and that every step taken will be toward construction and upbuilding, has given a special pleasure to all who are interested, and has been cordially approved.

"The treatment of the mentally afflicted is becoming more and more a general hospital problem," writes H. E. Webster of Royal Victoria Hospital, Montreal. Dr. R. G. Brodrick of the Alameda County Hospital at San Leandro, California,

blames politics for state hospital stagnation. "The chief difficulty," he writes, "is politics, and their interference with well qualified men, properly performing their duties." Dr. W. L. Babcock, director of Grace Hospital, Detroit, analyzes the medical service of state institutions. He points out that over-emphasis of custodial care as contrasted with high class scientific diagnosis and treatment, low grade professional work, little or no constructive research and lack of scientific enthusiasm are among the leading difficulties against which the state hospital labors on the up-stream.

Miss Carolyn E. Gray, R.N., of Western Reserve University, Cleveland, is very glad that we are going to give this problem space. "Some of the state institutions," she says "and some of the conditions which I have found there fairly haunt me, and the worst of the situation is that there is so much apathy about the whole problem." Dr. Herbert J. Hall, of Marblehead, Mass., pleads for occupational therapy in state hospital discipline.

Dr. W. C. Rappleye, superintendent of New Haven Hospital calls attention to the many difficulties known to exist in state hospitals, "arising" he says, "from factors beyond the control of the hospital group, and unless some of these controlling factors are brought into proper perspective, there is some danger of doing injustice to those working under the difficulties." Dr. L. H. Burlingham, superintendent of Barnes hospital, St. Louis, mentions the same phase of the subject, when he advises against the expose type of campaign; "for I am afraid," says he, "that in many instances those in immediate charge would be blamed for conditions for which they are in no way responsible and which they have tried unsuccessfully to remedy."

One effect that an improvement in standards will inevitably produce is hinted at by Dr. George F. Stephens, superintendent of the Winnipeg General Hospital. "Following a severe expose of mental hospital conditions by a competent commission," he reports, "the province of Manitoba has advanced fifty years in its methods of care and treatment of mental sufferers, and our present problem is to cope with and find accommodations for the large number of definitely mental or psychogenic cases which now present themselves."

Dr. M. T. MacEachern of Vancouver, B. C., is optimistic over the situation, for he finds in the mental hospital field today "there is the influence resulting from mental hygiene studies, and our mental hospitals are becoming less custodial and more scientific in treatment." To Michael M. Davis, executive secretary of the Committee on Dispensary Development, New York, the field THE MODERN HOSPITAL purposes to enter seems "to be a fruitful one and timely," and Miss Ida M. Cannon, chief of the social service department of the Massachusetts General hospital, after discussing the need for agitation such as is planned, concludes, "I'll be interested to watch for it."

Dr. F. P. Norbury of Illinois thinks the campaign will bring the general hospital into closer touch with the state hospital which, in his opinion, is very desirable. He writes: "Your plan will be of great practical value, in fact of educational importance, to the medical profession, to the nursing profession and to the general hospitals." Amos W. Butler, for twenty-five years secretary of the Indiana Board of State Charities says, "I believe the thought you have in mind is a good one. The public needs to be informed; officials need to be improved and institutional workers need to be inspired and encouraged for better things."

Dr. Sidney D. Wilgus, formerly of the board of alienists of New York and later superintendent of Kankakee and Elgin State Hospitals in Illinois, declares the proposed series of articles will "prove of much interest and constructive value." Bromley W. Wharton, for many years secretary of the Pennsylvania Board of Charities thinks the idea and the method of presenting it excellent. He says, "This is a subject that should have the greatest amount of publicity and be discussed by specialists who are thoroughly familiar with the subject. A statement of the facts, with constructive criticism, will be of great benefit to the cause of those mentally afflicted." Charles E. Vasaly, now superintendent of the Minnesota Reformatory, but for a long time chairman of the state board of control says, "This should be not only interesting and valuable but stimulating, and I am sure will do a great deal of good."

"Our standards are still too low," declares Dr. George A. Zeller of the Peoria State Hospital, Peoria, Ill.; "'pretty good for institution care' is an inexcusable expression. It will cost no more in money to raise the standard. The only outlay will be the exercise of closer vigilance, a greater regard for the patient's well-being and the determination that every dollar expended shall have some bearing upon the welfare of the patient."

Burdette G. Lewis, commissioner of institutions of New Jersey, is gratified that the subject is to be attacked in this manner and "thinks of nothing more timely than the proposed series of articles."

Dr. Herman M. Adler, formerly assistant director of the Boston Psychopathic Hospital and now criminologist of the Illinois State Department of Public Welfare writes, "I believe there is hardly a more important topic from the point of view of the general community welfare, which could be considered by your publication."

THE NEW PLANT OF THE VANDERBILT UNIVERSITY MEDICAL SCHOOL AND HOSPITAL

By COOLIDGE AND SHATTUCK, Architects, Boston, WINFORD H. SMITH, M.D., Consultant, Baltimore, G. CANBY ROBINSON, M.D., Dean, Vanderbilt University, Nashville, Tenn.

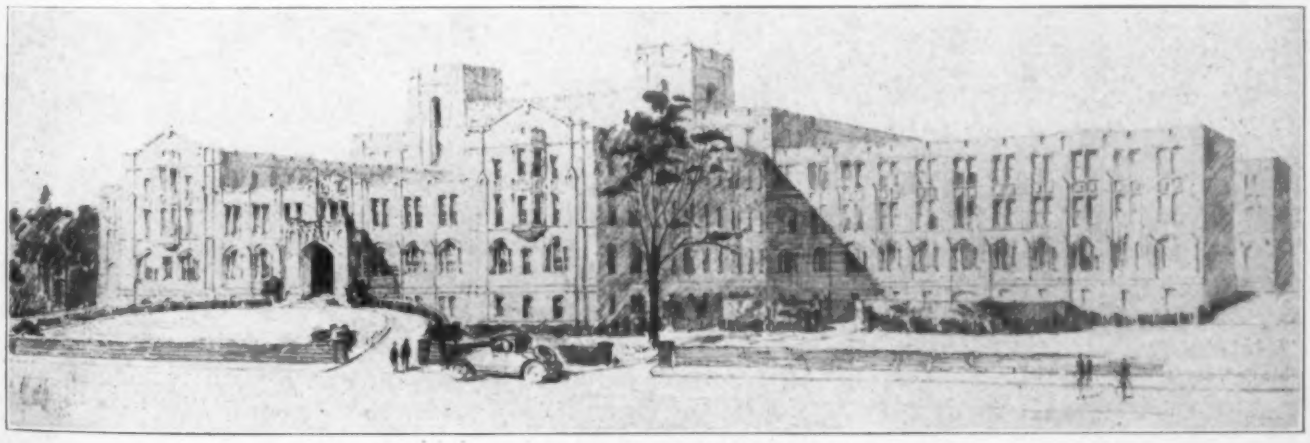
THE new plant of the Vanderbilt University Medical School and Hospital, Nashville, Tenn., has been planned with certain educational principles in mind. The plan has been developed with the idea of stimulating a coordination of the various departments of the laboratories and hospital in such a way that an intellectual interrelation may be readily developed and cooperation of departments may be effected. It is hoped that the physical continuity which will be established will go far toward eliminating barriers between the pre-clinical and clinical studies, and will allow all departments to exert a constant influence on the training of the future physician. The laboratories of the clinical departments are so placed that it will be possible for the heads of the various pre-clinical departments to exert a direct influence on the work done in these laboratories. It is planned to have the heads of the various laboratory departments assume responsibility for the standards of work and the quality of research done in their respective fields, no matter in what part of the school the work originates. Such an idea can be made effective only when the laboratories of the clinical and pre-clinical departments are adjacent. This has been accomplished in the proposed plan, while the proximity of the laboratories of the clinical departments to the hospital wards has been maintained.

Departments in Close Proximity

It is expected that the plant will possess not only the intellectual and educational benefits which should result from close physical proximity of the various departments, but will also allow an avoidance of the reduplication of laboratories, which has occurred in some of our medical schools, and which has increased the cost of their operation.

The teaching facilities of the school have been designed for the accommodation of classes of fifty students. Although the number of hospital beds provided by the plan is not as great as is consistent with ideal teaching conditions, it has not been feasible to build a larger hospital at this time. Future extension of the plant has been carefully considered, so that an increase in the student body may be effected at some future time. The foundations and walls of the hospital wards are to be constructed, so that an extra floor can be added to each wing in order to provide more adequately for pediatrics and obstetrics. Teaching facilities in other hospitals will be available and so will in part offset the somewhat meagre clinical facilities of the new plant. The extensive out-patient department which the plan contains will also minimize the disadvantages of the small hospital.

The buildings of the medical school are to be located on the south end of the campus of Vanderbilt University. It is fortunate that a site is available which will allow the medical school to be built as part of the entire university, as its nearness to the other departments of the university, especially those of chemistry, physics and biology, is considered highly desirable. The buildings will face the east on Hillsboro Pike, where there is a street car service, available for out-patients. The court containing the laboratories will open towards the north and face the main campus of the University, while the court containing the hos-



Study for the proposed Vanderbilt University Hospital, Nashville, Tenn.

pital wards will face toward the south. An uninterrupted development of the plant is arranged for in a westerly direction. The site of the medical school slopes down toward the Hillsboro Pike on the east, and advantage is taken of this difference in level by disposing the service in a basement under the eastern half of the building and leaving the western half unexcavated, so that the first floor of the building is uninterrupted by service.

The plant as now planned consists of:

1. The main building, containing the hospital and laboratories of the school.
2. The nurses' home.
3. The power house and laundry.

Main Building Houses Hospital and School

The main building may be divided for purposes of description into the hospital and the medical school.

The hospital will contain 163 beds and will have the following departments:

- Administrative offices.
- Staff living quarters.
- Kitchens, etc.; and service.
- Staff, nurses' and servants' dining rooms.
- 4 public wards, 30 beds each.
- 2 private wards, 27 beds total.
- 1 isolation ward, 16 beds.
- Dispensary with departments of:
  - Pediatrics.
  - Neurology.
  - Dermatology.
  - Medicine.
  - Eye, ear, nose and throat.
  - Dentistry.
  - Orthopedics.
  - Obstetrics and gynecology.
  - Urology.
  - Surgery.
  - Hydro- and occupational therapy.
- An x-ray department.
- An operating suite.

The medical school will contain the following departments:

- Administration.
- Anatomy.
- Physiological chemistry.
- Pharmacology.
- Physiology.
- Pathology, including museum.
- Bacteriology.
- Clinical pathology and hygiene.
- Clinical chemistry.
- Clinical physiology.
- Clinical bacteriology.
- Experimental surgery.
- Library.
- Animal quarters.

Laboratory rooms have also been provided for obstetrics and pediatrics.

Just north of the hospital building will be built a nurses' home to house 100 nurses, which will contain on the first floor an adequate assembly hall, practical demonstration room, two classrooms, library, reception rooms, kitchenette and a laundry for nurses' use in the basement. There are four floors of 25 bedrooms each, with a small lounge room on each floor; and a covered sleeping porch on the roof, where between 30 and 40 nurses can sleep in hot weather.

A power house and laundry will be built to serve this group, so arranged and placed that it may in future be enlarged to serve the whole university.

Details of Construction

The construction as planned contemplates building the exterior walls of brick, the floors of reinforced concrete and the partitions of terra cotta. The ceilings throughout will be unfurred except in the entrance lobbies and in those ward corridors where the ventilating system is run on the ceiling.

The interior walls and ceilings of the medical school and laboratories will be left unplastered, and will be painted directly on the brick or terra cotta, if any material saving can in this way be effected. The story height will be 12′ 6″ from floor to floor, giving a clear height of 10′ 6″ under the girders, which is the minimum which could be considered in this climate.

The usual 2′ vent and pipe spaces along the corridor walls will be eliminated in this building for purposes of economy. The ventilating system will be run on the ceilings of the corridors to vertical stacks at central points and thence to fan rooms on the roofs and in the towers.

The plumbing and heating pipes will be run on the exterior walls, where they can be installed more economically and will interfere less with the placing of furniture and cabinets, than if they were run on the corridor walls.

Water for domestic uses will be heated in the basement with steam brought from the power house.

Refrigeration machinery will be in the basement, and the brine will be piped to the various refrigerating centers which are superimposed on all floors.

Electric service will be brought in to the building at high voltage and transformed at four different points.

The exterior of the group will be treated in the collegiate Gothic style in red brick with the minimum amount of local limestone trim and detail. The design will depend for the most part upon the mass and silhouette of the building, and upon the proportions and grouping of the windows. What little decoration is used will be concentrated at a few points about the entrances.

Laboratory equipment has been kept as simple

as is possible without sacrificing efficiency. Complicated fixtures, built-in furniture, and a multiplicity of different types of furniture have been avoided. An effort has been made to devise standard forms of fixtures and equipment which may be used in any laboratory. Thus one type of table for microscopic work, one type of chemical table, and one type of chemical hood will be installed throughout.

Physical Areas of Three Buildings

The total length of the main building from north to south is 458′ 6″, and from east to west is 337′.

The cubic contents of the buildings are as follows:

Main hospital and school building	3,390,000 cu. ft.
Nurses' home	400,000 cu. ft.
Power house and laundry	360,000 cu. ft.
	4,150,000 cu. ft.

In an analysis of tentative allotment of spaces, the following table shows the areas of departments, inclusive of exterior walls, partitions, corridors, stairs, etc.

	sq. ft.	sq. ft.
Hospital—		
Hospital administration	18,740	
Hospital administration includes lobby, etc., administration offices, etc., and staff living quarters.		
Service	36,170	
Service includes main kitchen, bakery, diet kitchen and adjuncts; main hospital storage, including food, linen, books, mattresses, patients' clothes, etc.		
Dispensary	30,200	
Dispensary includes all the regular dispensary departments including hydrotherapy, occupational therapy, admittance, social service and dispensary pharmacy.		
Wards	47,230	
Wards include all public, private and isolation ward units, solariums, connecting corridors and open porches.		
Operating suite	9,600	
X-ray	2,545	
		144,485
Medical school		
Pre-clinical depts.	72,065	
Clinical depts.	32,400	
Library	6,525	
		110,990
Total area		255,475

Areas and capacities of wards are as follows:

		sq. ft.	sq. ft. per bed
4 public wards, each 30 beds	120 beds	26,960	224½
2 private wards	27 beds	10,320	382
1 isolation ward	16 beds	5,895	368
Total	163 beds	43,175	264½

Approximate areas of the departments of the school* are:

	sq. ft.
Administration	5,750
Anatomy	16,435
Physiological chemistry	8,715
Pharmacology	8,715
Pathology	13,470
Bacteriology	5,290
Physiology	9,550
Experimental surgery	6,715
Clinical pathology and hygiene, Clinical chemistry, Clinical physiology, Clinical bacteriology, Lecture rooms	25,685
Library	6,525
Animal quarters	4,140
Total area of school	110,990

The laboratories consist of a series of units measuring 19x12 feet, and rooms may contain one, two or three such units. The size of a single unit was determined after studying a large number of laboratories in various medical schools, and it was decided that a room measuring 19x12 feet possesses dimensions which afford the greatest general adaptability, regardless of the type of laboratory work to be conducted in it. Of the twelve foot space along the exterior wall, eight feet is devoted to window space. It has been adopted as a general principal that nearly all the rooms of the laboratories should communicate with each other by doors at the corridor end of the rooms so that the wall space is unbroken in the better lighted part of the room, a point of considerable importance in laboratory construction.

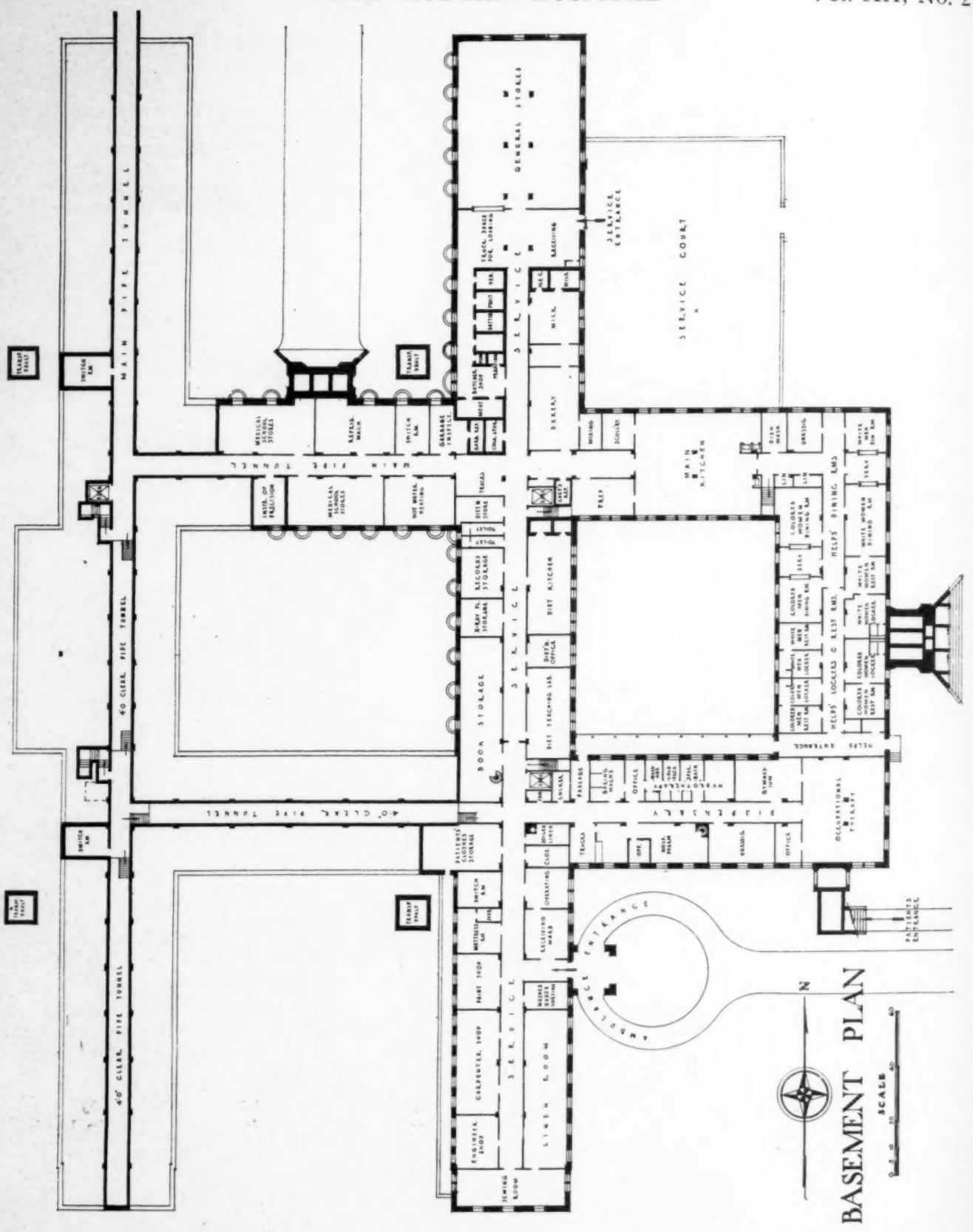
Basement Plan

The main service facilities are located on the basement floor and the striking feature is the close relationship of the various activities. This is particularly true with regard to the central receiving department, the central stores, and the butcher shop and refrigerated rooms, the bakery, kitchen, diet kitchen and dietetic laboratory. Attention is invited to the entrance for employes the ample provision for locker rooms and rest rooms, with the dining rooms for employes adjacent and in close proximity to the main kitchen. All of these features make for centralization of control and efficiency and economy of service.

The shops and central linen rooms are so located that all parts of the hospital are easily accessible by elevator.

The receiving room for ambulance cases, the hydrotherapeutic department, the occupational therapy department, and central pharmacy also

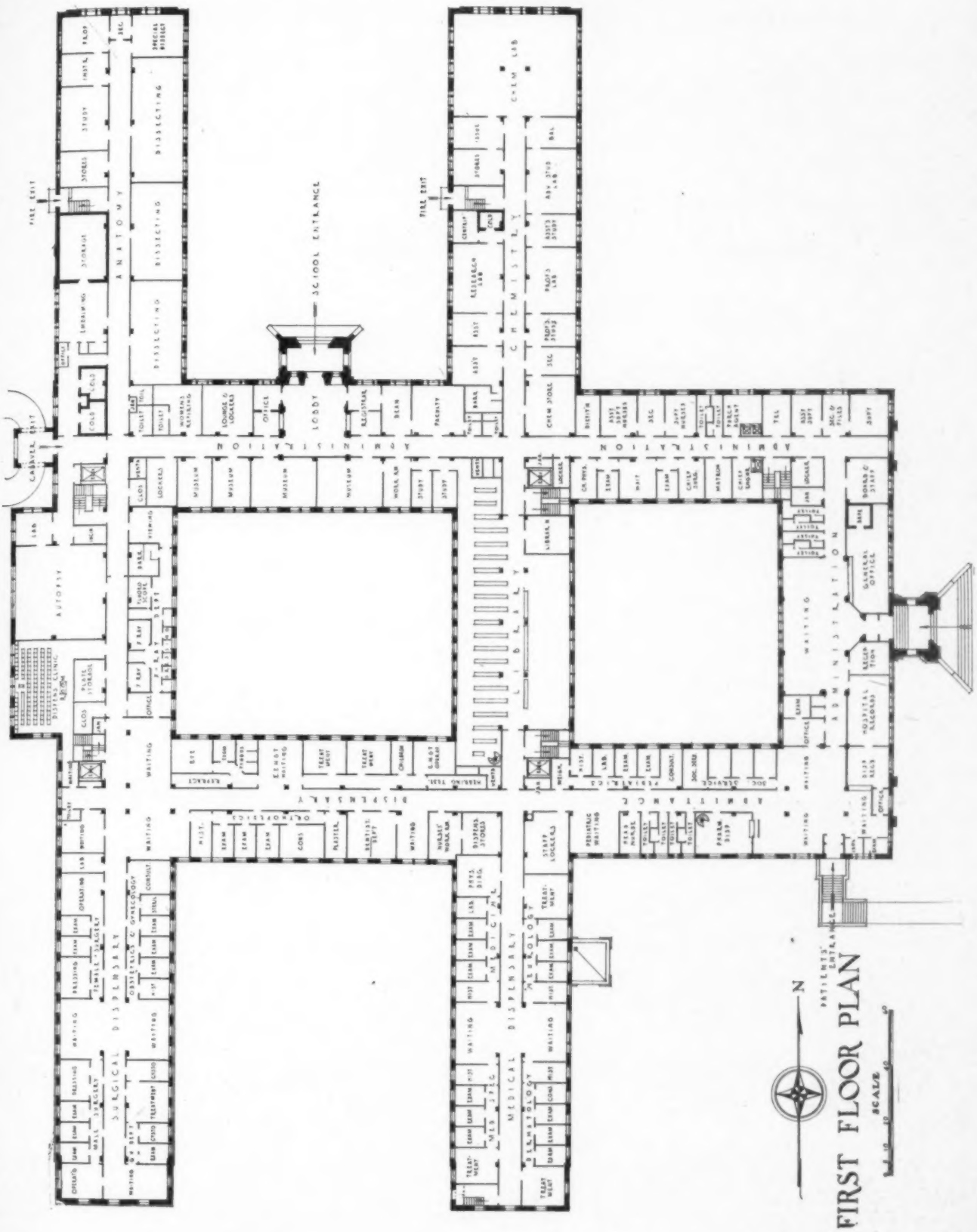
*Note: The school comprises all the regular school departments, including school administration, medical stores, etc., in basement, and animal house and yards on roof.



are easily accessible both to the hospital wards and to the dispensary. This central pharmacy serves the out-patient department located immediately above, as well as the hospital.

The receiving department from which all store rooms are accessible functions for all departments of the medical school and hospital. All supplies are brought into the small service court, surrounded by a wall, and are received at only one door.

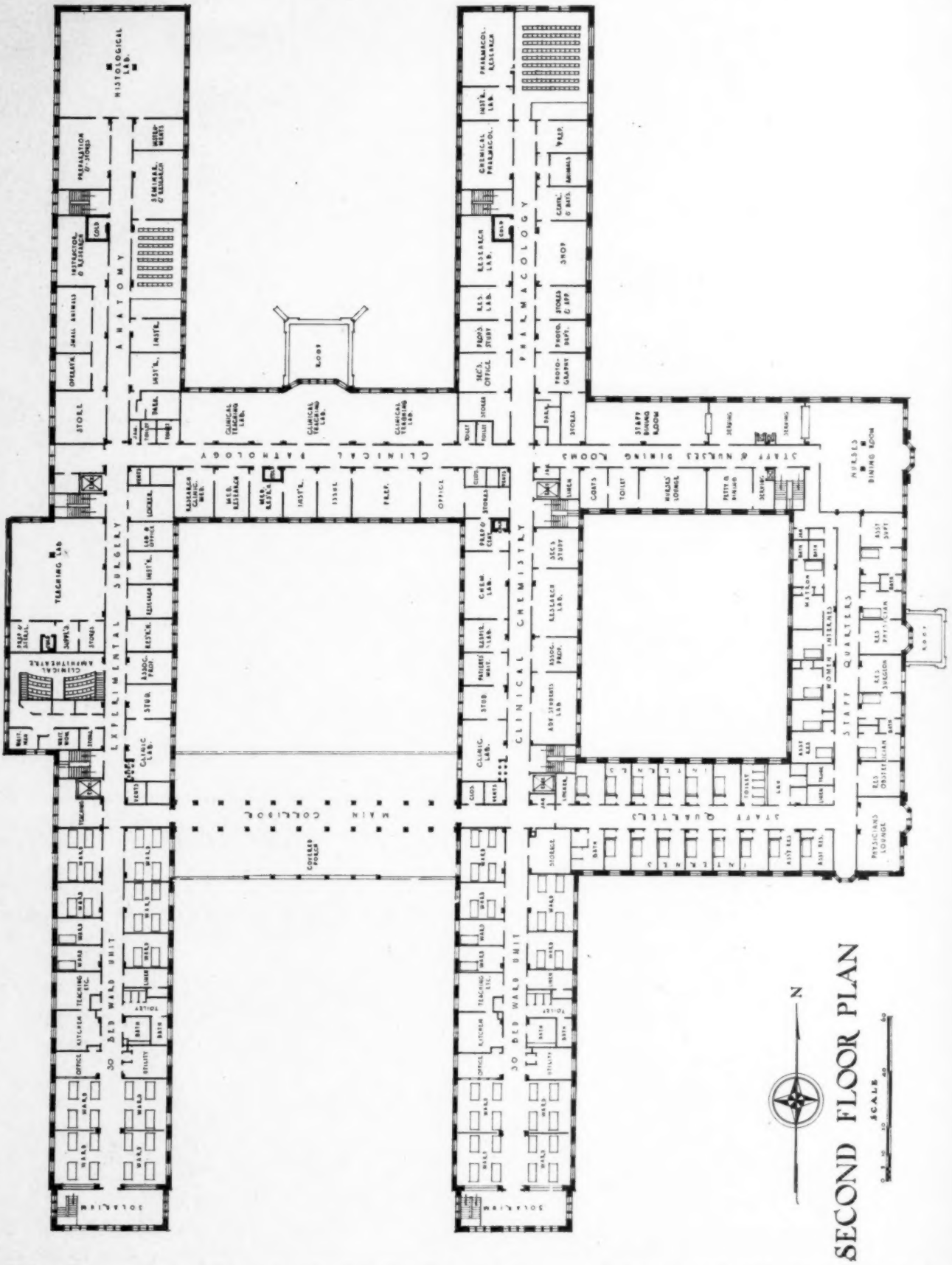
An important feature of this layout is accessibility of all departments. While each department



can be cut off and isolated by itself, there is nevertheless free communication between medical school, out-patient department, administrative office of the hospital, administrative office of the school and library.

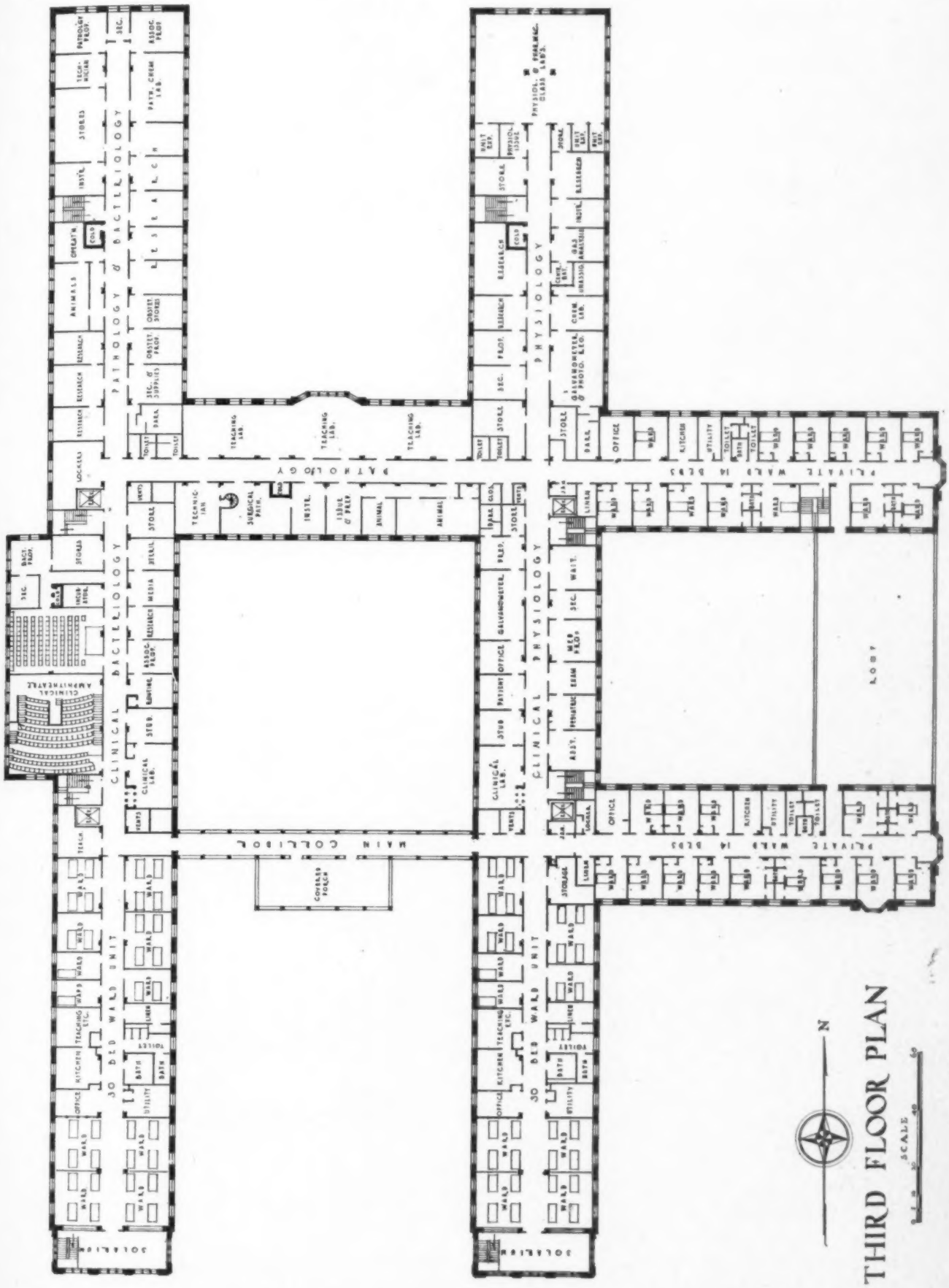
The relation of the admitting office of the hospital to the waiting room of the dispensary and to the social service is of interest, as well as the adjacent record rooms for the hospital and dispensary, which are desirable for the operation of the unit record system.

The x-ray department is placed in a position

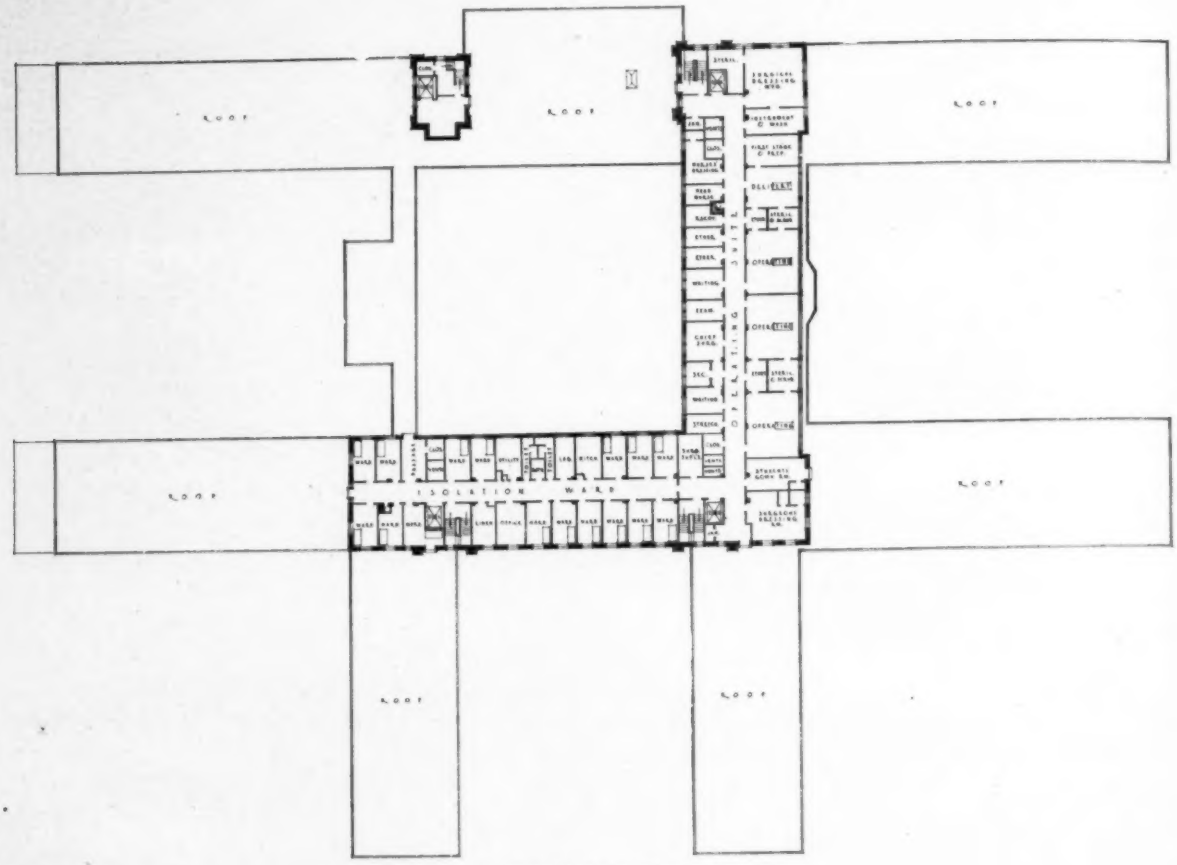


making it very convenient not only for the dispensary but also for the department of anatomy, where it has recently come to have an important use.

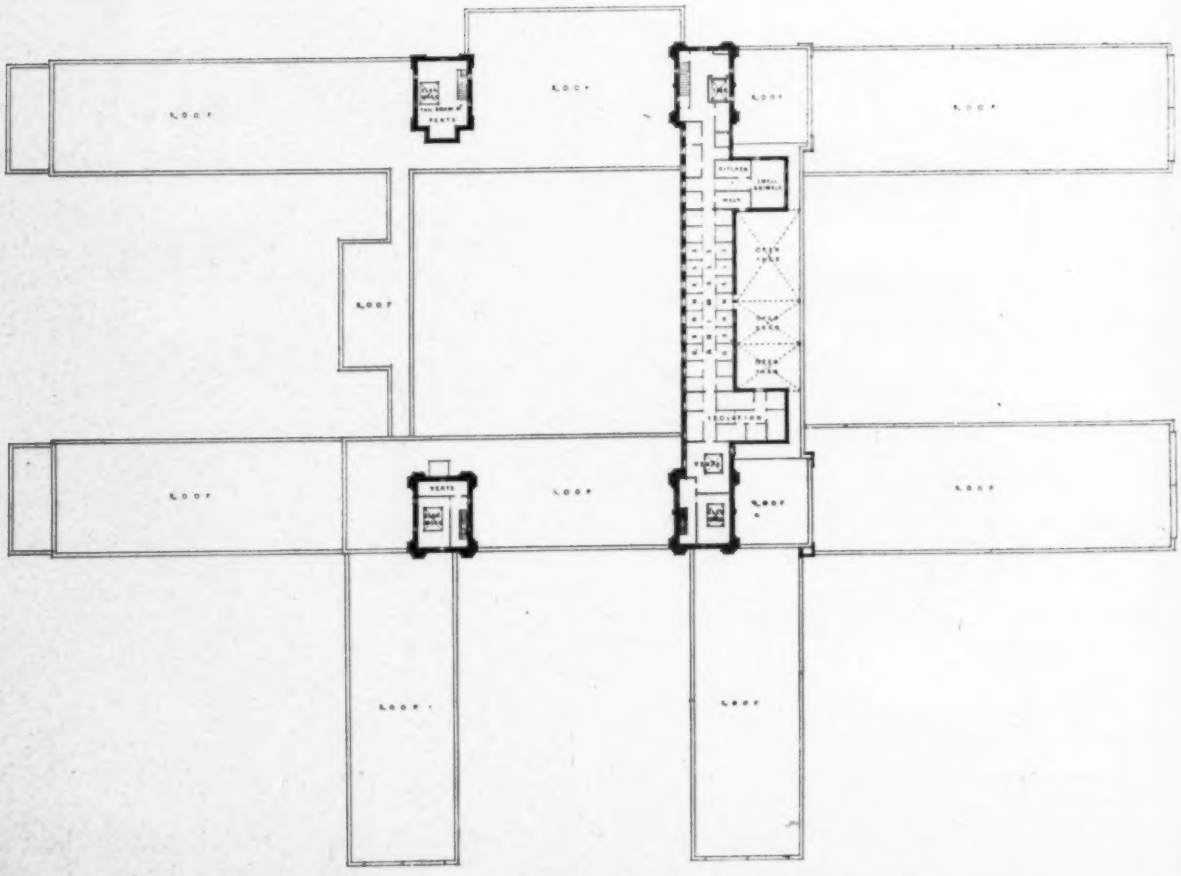
The same entrance and cold storage plant are used both for the bodies of patients dying in the hospital and for the bodies coming into the school for dissection, although the plans show that



separate rooms are provided for these purposes. The library and museum are so joined that one staff can care for the cataloguing, filing and issuing of both books and specimens.



Fourth Floor Plan



Fifth Floor Plan

The library is placed in the center of the building and is readily accessible to both hospital and school.

The medical dispensary is placed under the medical wards, while the surgical dispensary is placed under the surgical wards.

Second Floor Plan

The dining rooms for nurses, staff and petty officers are directly over the kitchen with dumbwaiter connection. They are also conveniently near the doctors' living quarters.

The distinguishing feature of the ward unit is the selection of 30 beds as a workable unit, and the arrangement of the 30 beds into an open ward of 16 beds divided into four cubicles of four beds each, the distribution of the remaining 14 beds into four-bed, two-bed and single-bed rooms, with all of the service of the ward located practically in the middle of the unit. This provides great flexibility in the selection of patients, segregation as to condition, disease or service. It also provides for service to all patients with the minimum amount of transportation, with a minimum distance to be traveled.

The laboratory of clinical chemistry is closely coordinated with that of physiological chemistry (on floor below) and pharmacology (adjoining).

The surgical laboratories are adjacent to the department of anatomy. They are directly over the x-ray department, and just below the laboratory of surgical pathology.

Clinical pathology and clinical chemistry adjoin, which is an advantage as these subjects are closely related.

The proximity of the doctors' quarters to the wards, the laboratories, the library, the dining rooms is noteworthy.

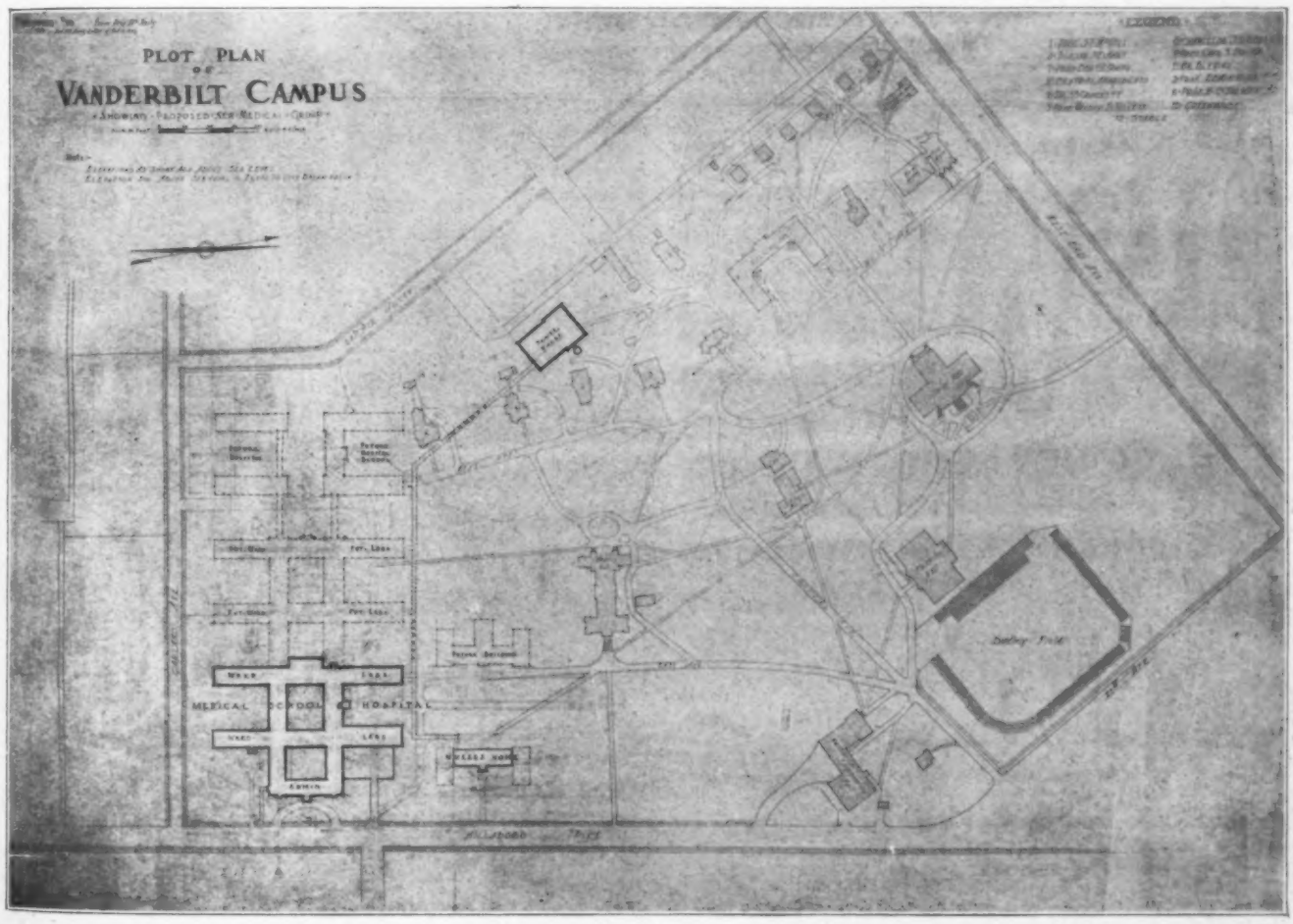
Third Floor Plan

The laboratory of clinical bacteriology adjoins that of bacteriology on one side and the surgical wards on the other. The laboratory of surgical pathology is directly under the operating rooms and is connected by a spiral stairway. The laboratory of clinical physiology adjoins the department of physiology on one side and the medical wards on the other.

Two private ward wings to the east are well placed with regard to exposure, accessibility, service and operating, and possess an attractive feature in the roof between them on which patients may be wheeled out in good weather.

Fourth Floor Plan

The operating floor, while somewhat larger



than would be required in an ordinary hospital, is planned particularly for a teaching hospital of an expected future capacity of 280 beds. It will be noted that the delivery department for obstetrical cases is provided on this floor under operating room supervision.

The isolation ward provides a minimum amount of space for such infectious cases as may develop within the hospital, or become necessary for admission from the dispensary. The space occupied by this isolation unit may be used for the expansion of the operating department in the future as the hospital grows, with provision made elsewhere for the isolation unit which could much more readily be moved than the operating department with its expensive equipment, flooring and plumbing.

Fifth Floor Plan

Animal quarters are placed over the operating suite. The question of noise is one to which considerable thought has been given, and it is believed this problem has been solved. The alternative would be the building of a separate animal house, necessarily at some distance from the school, which is considered to be undesirable. These quarters as planned would be shared by all departments of the school and would serve to house all animals except the smaller type which would be kept in the rooms set aside for this purpose in the various departments. All such rooms are provided with double corridors.

PAY CLINIC HAS BUSY FIRST YEAR

A digest of the report of the first year's work of the Cornell Pay Clinic, conducted in New York City by the medical college of Cornell University, contains some significant figures and statements.

It is the aim of the Pay Clinic to reach persons of moderate means who are unable to pay fees usually charged for adequate medical service for the condition from which they suffer, and who do not wish charity. In order to protect the private practitioner on the one hand, and not to duplicate the field covered by the free dispensary on the other, an economic classification of those who might properly be admitted was drawn up after much thought by members of the faculty of the college, with the aid of the staff of the Committee on Dispensary Development, and of economists and statisticians. Three factors are considered: (1) income, (2) size and responsibilities of family, and (3) cost of the type of medical service which is required.

The following classification is based upon the tabulation of nearly 20,000 consecutive cases:

Cases Admitted:	
Regularly in the Pay Clinic group (according to the social economic classification)	10,202
Temporarily in the Pay Clinic group:	
Because of unemployment, previous illness, or other financial emergency	207
Because of the unusual expense of the diagnosis and medical care required	26
On the border line or below the level of ability to meet the Pay Clinic fees, but admitted for various reasons	3,085
Doubtful, but admitted temporarily for a single examination or treatment, with decision as to permanent classification and admission suspended	874
No rating made	117
Admitted because of special interest as teaching cases	3
TOTAL	14,514
Cases Rejected:	
Unable to meet Pay Clinic fees	4,520
Able to meet fees of private physicians	322
Rejected for miscellaneous reasons	196
TOTAL	5,038

One of the features of the management of the Pay Clinic is the careful limitation of the number of patients in proportion to the medical staff available, so that the doctors shall have sufficient time to give complete and adequate attention to each individual patient. Even under the great pressure caused by the throngs of patients during the opening weeks, this principle was maintained. It is carried out in practice by giving each patient an appointment at a definite day and hour.

A fairly large percentage of the patients come to the clinic for the service of specialists directly. Also many of those going direct to general medicine are causes demanding the special skill of the internist. The average time spent by the doctor personally with each patient at each visit in general medicine is about half an hour; the average time for new visits is considerably more.

From the first, patients have been admitted for diagnosis when referred by a physician. They are then returned to the referring physician for treatment, or treated in the clinic, according to the wishes of the man sending the case in.

As to finances, the 113,981 clinic visits cost $231,875.40, exclusive of the cost of the new equipment, which was, of course, very high at first. The income from patients was $179,685.09; in other words, the average visit cost the clinic $2.03, whereas the average income per visit from patients was $1.57. The deficit has been met about half by the college and about half by the Committee on Dispensary Development of the United Hospital Fund. It is obvious that in order to meet fairly the obligation of giving the service to patients substantially at cost, so that they would not be accepting charity, the deficit must be reduced or the fees raised. Costs by departments have been worked out. Economies are being followed through when possible without impairing the quality of the work. The increase of the fee is under consideration.

At the end of the first year of the Pay Clinic it is still too soon, concludes the report, to speak with finality. The pay clinic is a sincere effort to meet a real medical need felt by many thousands of persons in this great community. During its first year the clinic has surpassed the expectations of the Cornell faculty, both on the medical side and in the number of patients. The one permanent essential to the success of any such enterprise is the rendering of a high quality of service. If, in addition, the clinic can contribute to medical instruction and research, can cooperate with the practising physician, can be made self-supporting, can be so managed as to eliminate the unfavorable, so-called "charity" atmosphere commonly associated with clinics, there is a great gain. But the clinic stands or falls on the rendering of a higher grade of medical service than can otherwise be secured by patients of moderate means at any rate which they can afford.

KANSAS HOSPITAL HEAD PASSES AWAY

Mother Superior Mary Josephine, for many years in charge of Catholic hospitals at Fort Scott, Hutchinson and Liberal, Kan. recently passed away at St. Joseph's Mercy Hospital, Liberal, while on an inspection trip there. Her death was due to angina pectoris. Burial was at Fort Scott.

HOSPITALS IN JAPAN

By H. J. HOWARD, M.D., and W. G. LENNOX, M.D., Peking, China.

MODERN medicine has been an important factor in opening the gates of the East. On account of Japan's commanding position in the Orient, the extent to which she has adopted and adapted western medicine is of interest to all who are concerned with the extension of the best methods for the prevention and cure of disease. Hospitals are excellent indicators of the status of medical practice. Therefore, the writer went to them to learn of medicine in Japan.

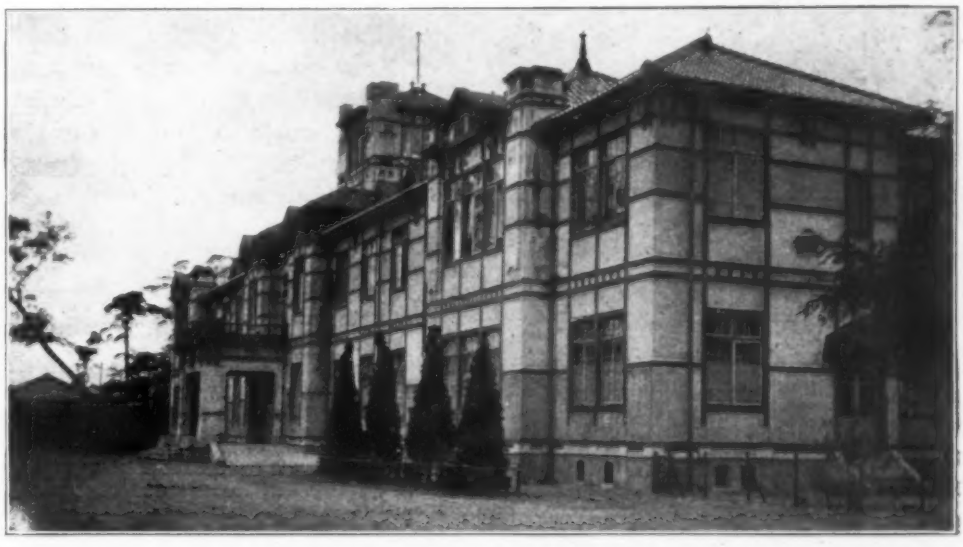
There are about 1,300 hospitals (of ten beds and over) registered with the Japanese Home Office. The writers decided to visit fifty of the more important of these in the leading cities. The distribution of hospitals visited is as follows: Tokyo 18, Osaka, 9, Yokohama 3, Kyoto 3, Nagoya 3, Shimonoseki 2, Kokura 2, and one each in Kobe, Sendal, Kanazawa, Okayama, Moji, Fukuoka, Niigata, Chiba, Nagasaki and Keijo. These eighteen cities have a total population of about 8,000,000.

The types of the hospitals visited are: Imperial university medical school 4, other governmental medical school 11, private medical school 4, city or prefectural general 4, government infectious 2, Red Cross 2, private general 7, private eye 9, leprosorium 1, tuberculosis 2, general hospitals under foreign control 4. These foreign-managed hospitals are not considered in the body of this paper.

Better Hospitals Visited

These institutions, located in the centers of progress and nearly half of them connected with medical schools, represent the better grade of Japanese hospitals. Visits were made without previous announcement. Two interpreters, one a Japanese theological student and the other a recent Imperial University medical college graduate, were used. In all instances save one, after proper introduction, permission to visit the hospital was readily granted and a guide provided. To these doctors and their assistants, who so courteously showed us about, great thanks are due.

One must bear in mind that the whole system of medical practice in Japan has been revolutionized in a single generation. Those who work in other Oriental countries can appreciate, as visitors fresh from the West cannot, the weight of public sentiment and prejudice which has been moved. Because of differences in social conditions, various modifications of the methods of western hospital management are to be expected. It is to be noted also that Japan has gone to Germany for her methods of medical education and practice. For example, in Tokyo the physicians trained in Germany number about 150, as against 30 trained in America and 15 in England. At the present time, however, Japanese are showing a greater interest in medicine in America.

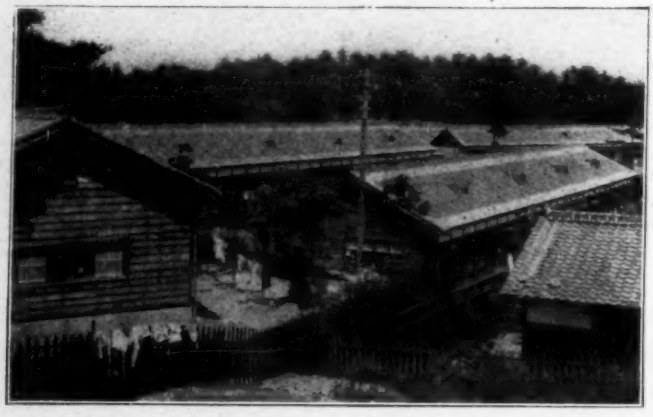


Dispensary for ear, nose and throat patients of the Kyushu Imperial University Medical School Hospital.

There are two main phases of hospital work to be kept in mind. The first is concerned with the advancement of medical science, the second with the care and cure of those who apply to the hospital for healing.

About half of the hospitals visited have labor-

atories for research work. These include medical school hospitals (in some of these, laboratories are located in nearby college buildings), the Red Cross hospitals and a tuberculosis sanatorium. Those not providing space for research are, in general, the city and private hospitals. In addition to the hospital and medical school laboratories there are in Japan four institutes for research only. Laboratories are well supplied with workers and apparatus. The interest of the medical staff seems to center in them, rather than in the ward. One cause for the superior attraction of the laboratory is the ambition of every doctor in Japan to enter the "professor" class, which necessitates the preparation of a thesis based on original investigation. The large volume of work produced is reflected in the publication of not less than sixty medical journals. At the last Congress of the National Medical Association of Japan, about 1,600 papers were read. Unfortunately, because the barriers of language, little of this material is accessible to the rest of the world. This makes it difficult to judge of the quality of the work being done. Certainly the Japanese have made many notable contributions



Ward buildings of a tuberculosis sanatorium. The construction and arrangement are typical of most hospitals in Japan.

to medical science, particularly in the field of parisitology, bacteriology, pathology and biochemistry. With the present large body of men who are devotedly interested in research, and with the rapidity increasing facilities for such work, one may expect for the future even greater contributions. Most of this work is carried on in medical school laboratories or in research institutes, and is a subject which deserves separate consideration. This present study, dealing as it does with hospitals only, cannot do justice to the subject of scientific medical investigation in Japan.

Aside from laboratory research, hospitals furnish the opportunity of contributing to a knowledge of disease through the bedside study of cases. This field of investigation seems to receive far less consideration. Current Japanese literature contains comparatively few case studies. Such clinical studies are hardly possible without an adequate system of records, a point considered later, to which the hospitals pay comparatively little attention.

The majority of the hospitals in Japan have the following general arrangement: A large, two-story wooden building stands broadside to the

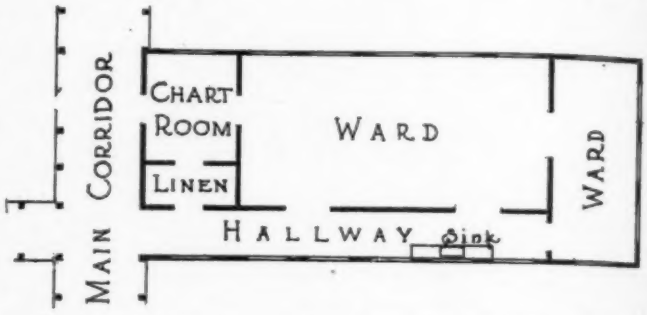


Diagram showing the arrangement of rooms in a building for ward patients.

street. In this are housed the business offices and out-patient departments. To the rear of this building and parallel with it are symmetrically arranged one or two story ward buildings, also of wood, with tiled roofs. Covered corridors connect the various wards. Three institutions are using buildings constructed forty or more years ago. The buildings of about half the hospitals have been erected within ten years. Elevators were installed in only two of the hospitals. Structures tall enough to require elevators are forbidden because of the danger from earthquakes. Three of the newer buildings are constructed in a style similar to hospitals in America. The new city hospital in Osaka is built of concrete, three stories and a basement, and is said to be the only fireproof hospital building in Japan.

Many hospitals have been destroyed in the fires which periodically sweep congested sections of the larger cities in Japan. Undoubtedly more fireproof buildings would be erected were it not for the very high building costs. We were told that this 700-bed hospital in Osaka is costing $4,000,000.

The arrangement of a typical ward unit is illustrated by the accompanying diagram. In some buildings, hallways extend along both sides of the ward so that none of the sickroom windows are on the outside. Floors are of wood and uncovered. Cuspidors are mounted on stools.

The main entrance of the hospital is a place of beehive-like activity. Patients and friends pass in and out freely at all hours of the day. All who enter must check their wooden clogs at the door and substitute straw or cloth sandles. As a result

of this excellent custom, floors require little cleaning and noise of walking is reduced to the gentle slap-slap of sandals.

Hospitals in Japan do not have the tidy, "picked-up" appearance one associates with the word "hospital." The plaster walls are usually unpainted. Flowers are lacking, the friends of patients preferring to send more useful gifts, such as food. Wards are crowded with visitors. Braziers and coal scuttles line the walls, dishes and medicine bottles and patients' food crowd the sinks. This is not true of all hospitals; the Charity Hospital in Tokyo, for example, is kept as shipshape as a man-of-war. This interesting hospital has been dominated by Baron Tokagi and his sons, who received their medical training in England. It and the associated medical school differ from other medical institutions in several respects.

Kaisei Private General Hospital at Osaka. The exterior of the building is stuccoed.

The disposal of sewage in the Orient is important because of the prevalence of intestinal infections. Only three of the hospitals visited, two in Osaka and one in Tokyo, have modern plumbing installed throughout. Several more have a few flush closets. The high cost of modern sewage disposal forces the other hospitals (about 90 per cent of those visited) to depend on latrines. These are placed in separate buildings, offshoots of the covered corridors which connect the wards. In most cases toilets for men and women are separate. As the cement floor usually is wet, patients when entering the latrine transfer to heavy wooden clogs. Closets are of the Oriental squat type, consisting simply of a slit in the floor, through which excreta drops to a pail or crock below; the resulting odors are not offensive to the Oriental patient as they would be to the Occidental. Usually the lower part of the building is enclosed, but in several, including two of the Imperial medical school hospitals, it is not, and excreta remains exposed to flies until the receptacle is full.

Toilet buildings or closets are not screened. Japanese police regulations require that cases of typhoid fever and bacillary dysentery be treated in contagious wards or hospitals. Even in these, no screening was observed. Hospital sewage, one is told, goes with the rest of the city sewage to enrich the gardens of the country side.

Running water is installed in four-fifths of the hospitals visited. The water is usually drunk unboiled.

In a country abounding with intestinal infections the manner of the preparation of food is of considerable importance. In most Japanese hospitals the kitchen occupies a separate building in the rear. In it are great wooden tubs, kettles of boiling rice, bare-chested, bare-footed coolies working on the wet cement floor. Visiting was done in midsummer, during a mild epidemic of cholera. Three of the kitchens were screened, though not effectively. Because of the menace of fire, cooking in several of the newer hospitals is done by steam.

Windows are numerous and wide. For this reason and on account of rapid rusting in the moist atmosphere, screening of wards is attempted in only three hospitals. About a third of the hospitals supply ward patients with mos-

quito netting. The loose construction of Japanese buildings permits ventilation, even with windows closed. One-half the hospitals have a central heating plant, usually steam; the others de-

Ward used by several departments in the Prefectural Medical School Hospital at Osaka.

pend, as do the ordinary Japanese houses, on small portable braziers. Two hospitals provide no heating facilities. All hospitals visited are lighted by electricity.

In about half the hospitals, operating rooms are ordinary rooms with cement floors. In the other half, floors and wainscoting are tiled and walls painted white. In five or six institutions, the rooms have sky lights. In two there is a system of artificial ventilation. In about half, the sterilizing is done with pressure steam. Stands for spectators, with one or two exceptions, were seen only in teaching hospitals in Tokyo.

The pharmacy in a Japanese hospital is a very large department, serving both in- and out-patients, and requiring in the larger institutions ten or fifteen dispensers. It is said that the income from drugs forms an important item in hospital revenues.

The largest of the hospitals visited has 750 beds, three have 500 beds, and one-third have 300 or more. The average number of beds in the institutions visited is less than 200.

The proportion of doctors to patients varies widely, from a ratio of one doctor to two and one-half patients in an Imperial University hospital, to one doctor to 58 patients in a tuberculosis sanatorium. The average of all hospitals visited was one doctor to six patients.

As concerns organization, the various departments are self-contained units, especially in the teaching institutions, where each department usually has its own record files, operating rooms, Wassermann and other laboratories, and library. Assistants do the work of interns. They receive small salaries of from $7.50 to $25 per month, do not rotate from one department or service to another, and may remain for an indefinite period of years.

The department of internal medicine is relatively more important than that of surgery. It controls more beds and is better staffed and equipped. The dental clinic is a comparatively recent addition to the dispensary in the West, so that it is not surprising that dental departments were observed in but two of the hospitals.

Concerning the quality of work done for patients, the observations were inferential rather than direct. Laboratory facilities for clinical examinations are much more limited than facilities for research. X-ray apparatus was found in all but four of the general hospitals, though in two others it was not in working order. In two of the Imperial University hospitals each of several departments possesses a plant. Apparatus is either of old German or new Japanese make. In most hospitals there is no special operator in charge. No electro-cardiograph for clinical use or respiration apparatus for determination of blood metabolic rate was seen. Much use is made of appliances for testing nerve conduction and for giving electrical treatments.

In the out-patient building, each department has several large rooms at its disposal. Instruction of students is given here, rather than in the wards. In most of the clinics patients seemed to get thoroughgoing physical examinations. The type of examination given to in-patients had to be inferred from perusal of the records. In half the hospitals, examinations are written out in detail; in the other half, usually city or private hospitals, records consist of a few words for the history

New building of the City Hospital at Osaka, said to be the finest hospital building in Japan. Wings are being added.

and a mark on a diagram for the physical examination. During the school year staff rounds are conducted twice a week. The doctor immediately in charge of a patient must see him at least once a day. The writers' visiting was done in the summer, and they did not encounter staff rounds and, except for a few occasions, did not happen

to find doctors working in the wards. Both acute and chronic cases are taken. In a ward of a university hospital, three of the patients said they had occupied a bed for one, two and eleven years respectively.

It was found that the "forbidden to enter" signs over doors to operating rooms applied to all but members of the staff, so that operating rooms in action were seen in half a dozen only of the hospitals. It seems the custom to flood operating room floors with water before operations, which requires surgeons and nurses to work in bare feet or to wear high wooden clogs. In one place they wore rubber boots. Rubber gloves were not seen.

Water in Japan is abundant and cheap. Rules of most hospitals permit patients to indulge their fondness for bathing every day in summer and every other day in winter. Hospital bathrooms, separate for men and women, are placed as offshoots of main corridors. The usual type of tub is a wooden tank about five feet square and four deep, capable of holding three or four persons. Some hospitals have separate tubs for staff and patients, others have different bathing hours. Three of the hospitals use porcelain tubs. One private hospital has a hydrotherapeutic department.

Main building of the recently completed Keio, Tokyo, University Medical School Hospital.

In many of the general hospitals outside Tokio, male and female patients occupy the same ward. The lack of privacy is intensified by the presence of visitors and the dearth of screens. As a rule, the number of visitors is unlimited and they may stay all day. In other words, they may practically live with the patient. The Charity Hospital in Tokyo allows visitors but a half a day twice a week. The Leprosarium never admits them. The wards seem crowded, not only because of visitors, but also because of the number of personal belongings which each patient provides. The following is one of the thirty-three rules for patients in a prefectural hospital: "The things the patient may bring on admission to the hospital are as follows: toilet paper, night gown, towels, washbasin, teacups, charcoal, charcoal scuttle, fire shovel, fire tongs, floor cloth, cushion, bed pan (if the patient is unable to leave his bed, and sleeping mat and bedding of attendant," Most hospitals furnish bedding, but do not supply garments, except to charity patients.

First and second class patients have private rooms, those for the former being suites of two rooms. In four or five of the general hospitals the private rooms are in Japanese style with sliding paper walls and matting covered floors. Practically all ward patients sleep on foreign spring beds, but about a third of the hospitals permit some or all of the private room patients to sleep on the floor. Almost none of the rooms have bureau or other drawer space, or chairs, yet they appear even more congested than the wards because more light housekeeping is done in them. Sometimes five or six members of the family may be dining on the floor beside the patient's bed. Provisions, dishes, extra bedding, coal scuttle, etc. lie on the floor beside the baseboard. Whether Oriental patients would get well faster under Occidental conditions of sick-room management is an open question.

About one-third of the hospitals visited serve all patients from the hospital kitchen. In one such hospital, however, the daughter of a patient said that she herself ate the food brought her father, and cooked other food for him. Two-thirds of the hospitals give the patients the option of furnishing their own food or of using that provided by the hospital.

As a rule, trays are prepared in the main kitchen and sent direct to the patient. Meals supplied by friends are brought in, ready cooked, from nearby restaurants, or are prepared over portable braziers in hallways or in servants' kitchens. Many wards are supplied with a huge teapot set on a brazier so that hot tea is always available. It should be remembered that the diet of the Japanese is comparatively simple. A typical hospital tray contains a small bowl of rice, a large sardine-sized piece of dried fish, a small boiled potato and a spoonful of baked beans. The staff may order special diets.

Almost all hospitals contain a store under hospital management, where one may purchase hats, fans, teapots, shoes, umbrellas, bedding, bedpans, fruits, candy, canned goods, soft and hard drinks, and almost anything which may make hospital life more pleasant.

In the Red Cross hospitals visited, there are nearly as many nurses as patients. In a tuberculosis hospital, there is one nurse to 8.7 patients. The average for the whole group visited is a nurse to 2.5 patients.

Several of the Japanese doctors complained of the quality and quantity of the nursing staff. The following are the reasons given; Nurses are ranked by the public in the class of domestic servants; the dollar a day pay of graduate nurses is less than they could get for work in the factories; girls of better education who receive training are almost sure to be lost to the hospital by marriage; missionaries discourage their students from entering training schools because of the reputed low moral standard of Japanese nurses; and there are a number of short term schools where girls may obtain nurses' certificates without having received any practical nursing instruction. As a consequence of this inadequate supply (or perhaps as an additional cause of it) most of the direct, personal care of patients is in the hands of relatives or untrained attendants. These may be seen giving food and medicine, carrying bedpans, and sleeping on the floor beside the patient's bed. Nurses take pulse and temperatures, dust floors, fill medicine bottles, etc. They wear unstarched, white foreign-style uniforms, sometimes without stockings and often without either stockings or sandals. Many look very young. Only a primary grammar school education is required for admission to the training schools.

Method of Keeping Records

Records are written in Japanese, or, in some of the teaching hospitals, in German. In the Imperial University hospitals, completed in-patient records are either bound or filed in boxes for permanent reference. In most hospitals, however, records are put away on shelves or placed in inaccessible store rooms. After a period of years they are destroyed. No card index of cases, nor person corresponding to an in-patient record clerk, was seen.

Out-patient records are filed serially and kept on shelves in the various departments. In one hospital there is a central record room where all out-patient records are kept.

Clerks in the business office list patients in books by number and by name. It was found that hospitals do not print annual reports. This is in part due to the fact that very little of the support of the hospitals come from contributors whom it is advisable be kept informed of the work being carried on. Also, printing is expensive.

In four of the hospitals visited all beds are free. In others the patients are divided into a number of classes. Charges vary, according to class and hospital, from 25c to $6 a day, with an additional charge for the ice, fuel, medicines, etc., used. A special student nurse costs 60c to 80c a day, according to the class served. Nearly all hospitals visited were filled to capacity. In the larger hospitals out-patients number from 200 to 600 a day. Out-patients are also divided into classes and pay a small fee for a series of visits. It is not the fashion in Japan as it is in America, for the rich to found and endow hospitals. Almost all the support of these institutions comes from public funds or from the patients themselves. Since the mass of the people cannot afford luxuries, it is essential that hospitals be conducted in as economical a manner as possible. For this reason one does not see the elaborate buildings and equipment found in many hospitals in America.

Professional Fees Do Not Vary

Research workers and practising physicians alike have very modest incomes. Fees for professional service do not fluctuate according to the wealth of the patient as they do in America. The same rates are charged to all and if the patient is able, he gives his physician a present. Certainly, the profession in Japan cannot be charged with greed for gain.

In one Imperial University hospital opportunity was given to speak with a number of patients in the medical ward. The following case is fairly typical: A boy of fifteen said he had occupied a free bed in the hospital six weeks. His complaint was stomach trouble and constipation. He was without friends in the city, so bought and cooked his own food, going to the street to provide himself with the rice, eggs and vegetables which constituted his diet. He kept his medicine bottle in a pail in the hallway sink, and took the medicine himself, carrying the bottle to the nurse for refilling when it was empty. He was asked if anyone spoke to him if he did not take his medicine, but the idea of disobeying instruction had not occurred to him.

No group corresponding to a social service department was encountered in any of the hospitals.

In hospitals connected with medical schools charges are lower than the average. Charity patients provide the material for teaching in both life and death. Each one on admission must sign an autopsy permit. Unclaimed bodies go to autopsy and then to dissecting rooms. Bodies for dissection are purchased also from poor relatives for from $2.50 to $10 each.

Red Cross hospitals number about thirty. Doctors and nurses are bound by vow to serve in

case of war. The Red Cross hospitals are the best equipped, with the best esprit de corps of any hospitals visited. The following observation illustrates their preparedness: the beds of patients who, in the event of fire, would need to be carried out are marked by large wooden tags, of a certain color. Those patients who would need assistance in walking have tags of a different color.

Contagious hospitals care for cases of typhoid fever, measles, bacillary dysentery, scarlet fever, diphtheria, cholera, smallpox, and meningitis. Rules concerning disinfection of the hands and feet of the attending staff are strictly observed, but less account is taken of flies. Bodies of persons dying in these hospitals are cremated.

One of the six government tuberculosis sanatoriums was visited. It is conducted with military-like precision. Research laboratories are particularly roomy and well equipped. When passing the wards one is given close-fitting masks to wear. The nurses and patients are supposed to wear them constantly to prevent spread of infection, but the superintendent complained that in hot weather he has difficulty in enforcing the order.

There are said to be 20,000 lepers in Japan, to care for whom there are ten asylums. Five of these are supported by the government, one by a Buddhist society and four from private funds. One of the latter, in charge of devoted Japanese Christians and supported by a British-American organization, was visited.

The few foreign controlled hospitals in Japan are primarily for the use of foreigners and are much like private hospitals in England or America. Two exceptions to the rule are St. Luke's

Tokyo Imperial University Compound

Medical ward of Tokyo Imperial University Hospital.

Hospital in Tokyo, and the hospital of the Severance Medical School in Keijo (Seoul). Those are designed to serve the Japanese and the Korean people. Those in charge feel that these institutions can be of use to the Japanese in at least two respects. First through using middle (high) school graduates and training them in an atmosphere of service, they should aid in raising the standards of the nursing profession. Second, they hope to center more of the interest of the staff on the patient and the problems of his care and cure. More specifically, they hope to demonstrate the value of "the Christian attitude toward the patient."

The authors' observations lead them to feel that such hospitals, conducted in a spirit of cooperation with other hospitals in Japan, can be of direct use to the Japanese and through them to the whole Orient.

RETIRES FROM HOSPITAL SERVICE

Thirty-one years of continuous hospital service ended last month for Albert M. Conklin, deputy superintendent of New York City Hospital, when he retired in accordance with the New York City Employes' Retirement System. Mr. Conklin's hospital career began on December 18, 1891, in the capacity of orderly.

On December 20, preceding his retirement, friends of Mr. Conklin held a reception in his honor at the hospital. Mr. Conklin's successor, Mr. Arthur J. Cote, presided as chairman at the meeting, and addresses were given by various officials. Dr. Charles B. Bacon, medical superintendent, spoke in behalf of the medical and administrative staffs; Miss Theodore H. LeFebvre, principal of the school of nursing, in behalf of the nurses; and C. G. Everett, in behalf of the employes. An autographed testimonial and $140 in gold were presented the retiring deputy superintendent.

Immediately following his retirement Mr. Conklin was married to Miss Mary Bell. He has purchased a home in Danbury, Conn. where they will live.

Debt fascinates, then destroys its victim. It is like the fawning host who graciously invites his guests to dine and then poisons them at the feast. Let us pay all our debts of affection, meet all our obligations of friendship, assume no undertaking we cannot fulfill and pay our bills one hundred cents on the dollar.

NEW CHILDREN'S PAVILION OF MOUNT SINAI HOSPITAL, NEW YORK

By ARNOLD W. BRUNNER, Architect, and S. S. GOLDWATER, M.D., Consultant, New York.

WHAT seems to strike the average visitor to the new children's pavilion at Mount Sinai Hospital most forcibly is the fact that every inch of the interior is bright, cheerful and airy, notwithstanding the fact that the building is surrounded by other hospital buildings, great and small.

The outside dimensions of the new building are 106 by 60 feet, the longer dimension extending from east to west. Seventy-five feet south is a three-story laboratory building; to the west, at a distance of about sixteen feet, is the two-story residence of the director, while to the east is the two and three-story children's dispensary (two stories at the extremities, three in the middle) with which the new pavilion connects.

The desired capacity of a hundred beds necessitated the construction of four ward floors, twenty-five beds to a floor. The plan shows that the south and west fronts of the building are occupied by patients. In the south center is a sixteen-bed ward, divided in part by means of glass and metal screens of the conventional type into individual cubicles. To the right and left of the large ward are ample loggias. The west wing is occupied entirely by patients, and is divided into four small wards, each of which is subdivided into individual cubicles.

North front of new Children's Pavilion of Mount Sinai Hospital, New York.

Altogether individual cubicles are available for approximately half the patients. The children's service at Mount Sinai Hospital includes both medical and surgical divisions, and for such a service 50 per cent of individualization suffices, for a considerable percentage of the patients are convalescents who with reasonable safety may be permitted to associate either in the ward, on the loggias, in the playrooms, or in the kindergarten. The degree of segregation or individualization required in a children's ward is always a question of interest, and occasionally extremists take the ground that complete individualization is essential, but in actual practice such rigid segregation, in a hospital devoted to the care of general medical and surgical cases, works unnecessary hardship and involves unnecessary expense.

The manner in which children are received and cared for during the earlier stage of their hospital residence is of vital importance to the sanitation of the ward. At Mount Sinai all ward patients, whether adults or children, are first cared for in the receiving wards of the hospital where segregation is provided for all suspicious cases, while for all children (except urgent operative cases) there is prescribed a preliminary detention period of twenty-four hours, during which time the history of the case is thoroughly investigated, home conditions ascertained, and necessary cultures and smears made, examined and reported upon. Following the detention period in the receiving ward, the child is advanced to one of the individual cubicles in the children's pavilion, and further advancement to one of the open or unprotected cribs follows in logical order.

The wards and loggias are screened. During the warmer months the loggias are freely used as auxiliary wards. Both the sixteen-bed wards and the three-bed wards have windows on three sides. The fourth side of the sixteen-bed ward consists largely of a glass partition separating the ward from the corridor, which has two double French doors and an additional outside window; in other words, there are three fresh air openings along the length of the corridor. These conditions favor natural ventilation. To guard against eventualities, exhaust ventilating ducts have been provided for all of the wards. These

are connected with a fan chamber in the attic above the roof structure. Thus far, in the wards of the main hospital, which are similarly equipped, the use of ventilating fans has not been found necessary, but it is not inconceivable that as the character of the buildings in the immediate neighborhood changes, prevailing air currents may be deflected or diminished and mechanical aid to ventilation may thus become desirable. Apart from the duct system connected with the wards, there are exhaust ventilating ducts for the pantry, utility room, bath, toilet, and examining room, which, together with the playroom, complete the ward floor.

A children's paradise is the playroom which adjoins the playground on the open roof at Mount Sinai's new pavilion for children.

The continuation of the corridor on the lower stories affords direct connection with the adjoining dispensary building, the basement and first floor of which are occupied for dispensary purposes proper, while the floor above accommodates a twelve-bed overnight ward for tonsil and adenoid cases, with suitable operating facilities. Patients admitted to the tonsil ward enter and leave by the dispensary route, and thus have no contact with the occupants of the children's pavilion proper, although the supervising nurses of the pavilion are enabled, by virtue of the proximity and accessibility of the tonsil ward, to supervise this ward both day and night.

One of the illustrations which accompany this article shows the south and west fronts of the children's pavilion, with one of the sets of loggias conspicuous in the foreground. This picture makes clear the relation between the children's building and the surrounding structures. The north front is reproduced from the architect's drawing.

It will be observed that the design of the exterior is extremely simple. The type of architecture chosen and the materials used, brick and stone, conform to the original group of buildings erected many years ago. While all the new buildings harmonize as much as possible with the older ones, the treatment has been greatly simplified and a minimum of ornament used, reliance being placed entirely upon agreeable proportions and delicate detail.

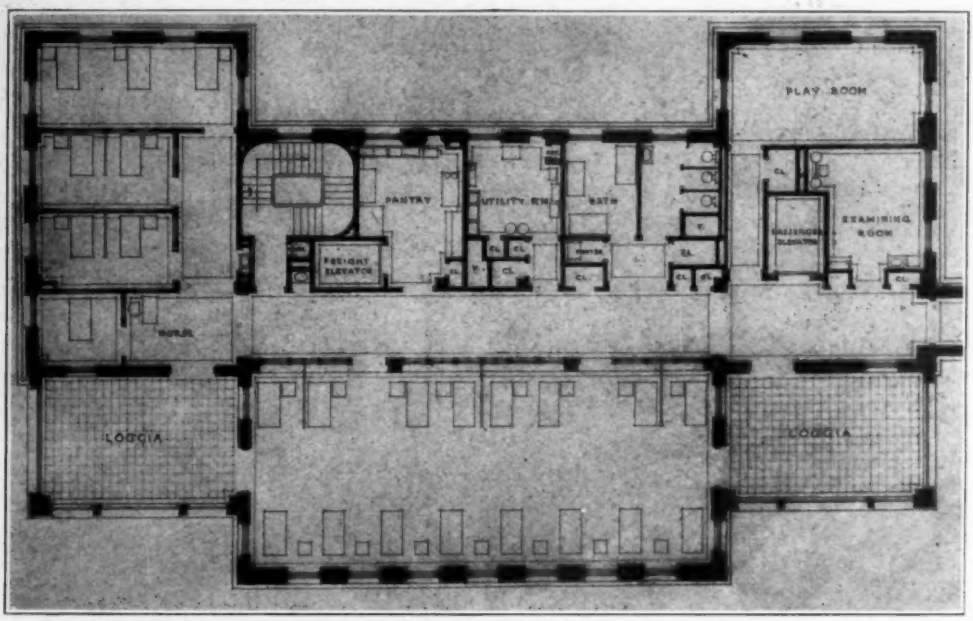
The placing of the cribs is shown in the two photographs, one disclosing the interior of a sixteen-bed ward, the other showing the desk of the head nurse in an alcove off the corridor, together with the whole series of small side wards, separated by fixed glass partitions. Another photograph shows the exceptionally cheerful main corridor, with the visitors' elevator in the foreground and the nurse's chart desk or control station in the extreme background; to the left is the glass partition separating the corridor from the main or sixteen-bed ward, and to the right the doors of the various service rooms, supply closets, etc.

Wards Finished in Mahogany and Cream

The floor of the side wards is finished in terrazzo; in the main wards terrazzo is used under the cribs, while in the center there is imbedded a nine-foot strip of battleship linoleum, edged with brass and bordered with ceramic tile. The walls are tiled to a height of 4′6″, a blue strip separating the white tile wainscot from the tinted plaster surfaces above. The windows are double hung sash, with a small adjustable ventilator in the lower sash rail and a transom hinged at the bottom and controlled by a transom rod. The door trim and interior window trim are of flush metal.

The color scheme is mahogany and cream for the wards, olive green, cream, and French gray for the pantries, white for the examining rooms.

The general illumination of the wards is accomplished by means of indirect fixtures of dustproof design, but the night lights both in the wards and the corridors are enclosed in metal boxes inserted flush with the wall, placed at a height of 20″ from the floor; they throw a gentle light along the floor of the ward or corridor, as the case may be, the source of light and its distribution being wholly below the level of the patients' eyes.



Typical plan of ward floor, Children's Pavilion.

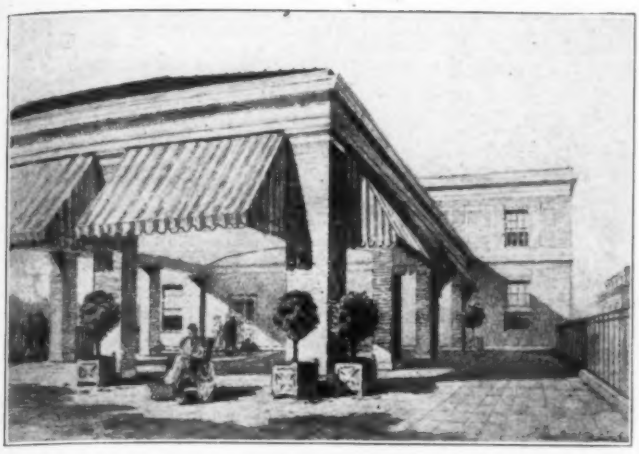
Ventilation Suited to Patients

The nurse's station is in the corridor; the advantage of this location lies in the fact that at all hours of the day and night the free ventilation of the ward according to the requirements of the patient and not of the nurse can thus be accomplished. Since the ward is divided into five different units, a variety of temperatures may be obtained—cold rooms for pneumonia cases, for example, as required. The loggias, too, are available for stimulating outdoor treatment.

The head nurse's desk is strategically placed, so that the nurse, without leaving her chair, may view all of the sections of the floor which are occupied by patients; at the same time she commands the main corridor, so that the movements of her assistants as they pass from the larger to the smaller wards, or from the pantry, utility room, bath or examining room to the ward or vice versa, can be readily supervised.

The recessed part of the northerly front of the building is occupied by service rooms exclusively. First in order is the pantry (an illustration of which accompanies this article). The brine-cooled refrigerator, standing upon a sanitary base, may be observed. The double vitro-flint sink and drain boards, hung from the wall, are conspicuous in the photograph. There are two metal closets inserted on the outer wall, both ventilated by louvres; the first of these is for dish cloths and the like, the second for the garbage pails. A dish sterilizer, which, like the sink, is hung from the wall, is another feature of the room. A heated cabinet, with broiler and gas stove attached stands upon white metal sanitary legs of distinctive design. The cupboard and dresser are of olive green steel, resting on a concrete base 8″ high, the face of which is finished in tile. The countershelf is of Tennessee marble, turned up slightly at the back, so as to avoid an objectionable joint. The walls of

View of south and west fronts of Children's Pavilion, with surrounding buildings.



Corner of roof garden, Children's Pavilion, Mount Sinai Hospital.

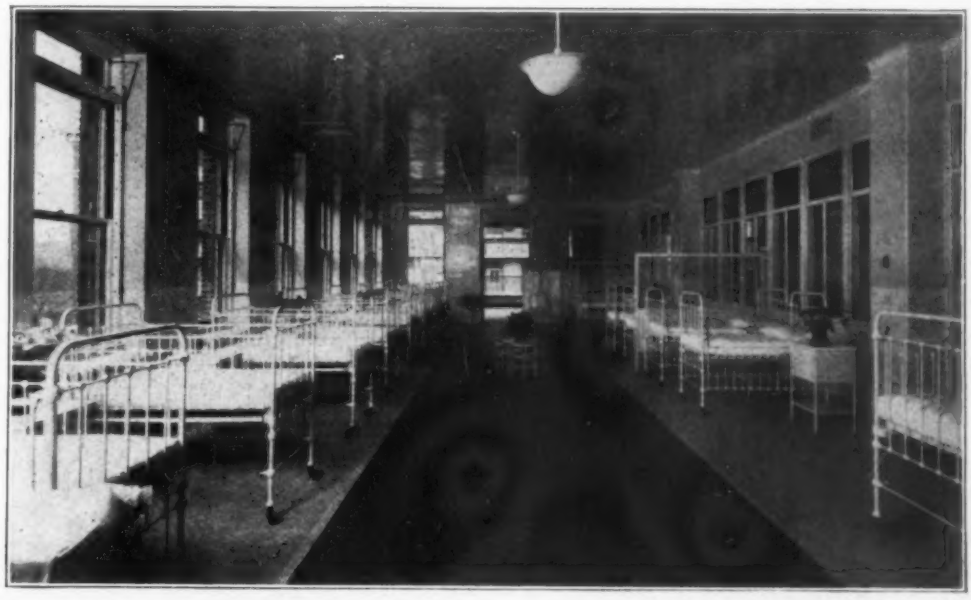
all service rooms are tiled with white tile to a height of 5′ 6″, a line of color separating the white tile from the cream enameled walls above.

Built-in Fixtures Are Unique

In the utility room, the floor is of gray and white hexagonal tile; the bed pan sink and utility sink are hung from the wall; on the opposite wall are an instrument sterilizer, a marble shelf, a handbasin with elbow acting valve, and a combination specimen closet of a design here executed for the first time. Photographs of this closet are presented, one showing the closet closed, the other open. This closet is really three closets in one; the two upper sections are separate refrigerators, the topmost designed for 24-hour specimens of urine and the like, and the one next below being a chamber for cracked ice. The lowermost section has a simple metal door, a tiled floor, adjustable sanitary shelves, and a louvre by means of which it is directly ventilated; this closet is available for the preservation of stool specimens, etc. This entire closet is built into the room, is faced with tile and plaster in a manner corresponding to the wall treatment of the room proper, and is regarded by the nursing organization of the hospital as a valuable innovation.

The bathroom contains a tub bath on a pedestal, with a slab bath whose water supply is doubly protected, first by a thermostatic mixing valve, and second, by an overhead tank or reservoir, from which there is suspended an open-faced thermometer of specially large size and conspicuous markings.

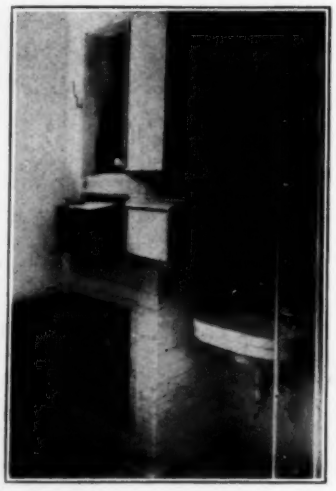
Closets abound in and about the service rooms. Besides the linen closet, supply closet, cleaners' closet, drying closet, blanket-heater and bed pan warmer, there are special gown closets for visitors, both medical and lay. The examining room is equipped with instrument and water sterilizers, scrub-up basin, utility sink, and built-in metal instrument and supply cabinet; the sterilizers occupy a metal lined alcove, with exhaust ventilator above. Additional features are an incubator room on the third floor, which is automatically controlled both as to temperature and humidity; a milk room and pasteurizing room; a central linen room; a special diet kitchen; a dietetics classroom; glass-lined clothes chute; built-in medicine closet, with sink; illuminated call-box for house staff signals; corridor lavatories for the medical staff; a clinical laboratory, with alberene hood and work benches; quarters for wet nurses; a small semi-isolated research ward placed atop the connecting dispensary building; passenger and service elevators of large size, finished in bronze



Sixteen bed ward in Children's Pavilion, with one of its two connecting loggias.

Nurses' station and side wards.

and with terrazzo floor and sanitary base; cooled drinking water supply, with fountains in the corridors; gas emergency lighting system; flush glass-faced fire hose cabinets; special wiring for electrocardiograph; push button call signals for all side wards; suspended waterclosets for the larger children; water closets of special size for the smaller children; steel guards for all exposed corners in corridors; hollow steel doors for wards and service rooms; wheel chair guards in corridors; pivoted transoms over fixed interior sash in wards; roof equipment for actual nursing service.



Combination specimen and cracked ice closet. Closet open.

Combination specimen and cracked ice closet. Closet closed.

A playroom of ample size is located in a position remote from that section of the ward which is designed for occupancy by the more acutely sick patients. On the roof there is a large open playground, a covered roof section exposed at the side, and an indoor playroom or kindergarten, where a kindergartner is in daily attendance during the afternoon hours to amuse and instruct the convalescent children. Let the exuberant words of a recent visitor describe this room:

"What a Fairyland, up on the roof! Baby's eyes grow saucer-big as, entering a room, she is surprised with a sudden burst of color—lovely pinks and blues, browns, greens, yellows, on walls and furniture—and that color, upon examination, becomes all her story-book favorites. There on the wall is Cinderella in her gorgeous coach with driver and footman and four proud horses. And oh, that is Old Mother Goose with her crook, shooing white geese along a green hillock! Nearby, sailing the ocean blue in their wooden shoe boat are Wynken, Blynken and Nod, and Wynken is seasick. Further along, climbing his beanstalk to the giant's castle, is plucky Jack; while not far off, another Jack and Jill go up the hill with a pail of water. In the garden of 'Mary, Mary, quite contrary' grow—guess? Besides little flower faces, there are peppermint and lemon canes and . . . balloons!

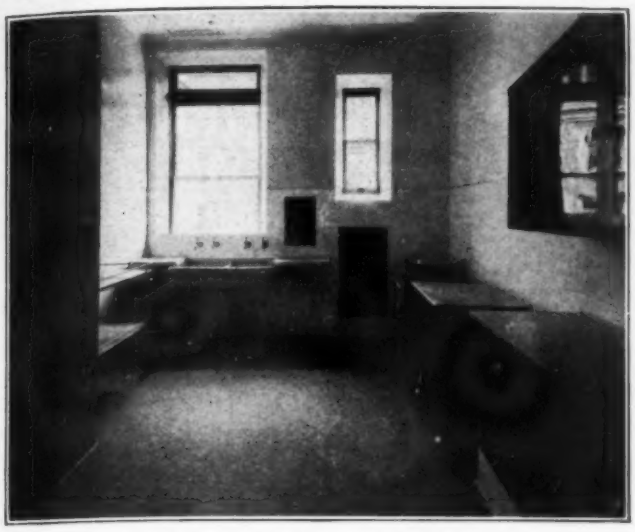
"On another wall, in a windmill that looks as though it were really turning, is a pretty clock that tells real time, and on a lamp-post nearby is a real gas-jet that grown folks can light when it is dark and all other lights won't light and children might otherwise be frightened.

"And in the room itself—what heaps of fun! If you are not in a wheel chair, you sit in little blue chairs at small, brown-topped tables which match the floor.

"Forgetting all about sickness, and that you haven't seen even your mother since you've been in the hospital (so your temperature won't rise), you listen to stories told by white-robed ladies that the nurses call 'social-service-workers.' They also teach new games and songs, and take you out on the balcony to watch well children play in Central Park and to see the horseback riders. Or you can play all by yourself, for there's a screen that's the outside of a house on one side, and a bedroom, kitchen and living room on the other. And when you are through with your toys, you put them on the shelves of what, on the outside, is a barn with a haymow, dovecote, and horse and cow in their stalls. And who would think that pretty garden scene was a victrola inside! Or that pretty box a book-case!

"Somehow, after Convalescent Baby has visited Fairy-land, she rapidly gets better in the long white ward, dreaming and talking about the pictures, the color and the fun—each day anticipating the next afternoon's trip to the roof.

Ward corridor with ward to left, and service rooms to right.



Ward kitchen or serving room, Children's Pavilion.

Side of utility room, Children's Pavilion.

The total cubic content of the building, from basement floor to roof, excluding the roof structures and loggias, is 388,275 cubic feet. The total floor area of a typical ward floor is 5,225 sq. ft. The sixteen-bed wards are 23 feet wide, 54′6″ long, and 13′ from floor to ceiling. The ward windows are 4′ wide by 8′6″ high, transoms included.

REDUCING FIRE HAZARDS

Of interest to hospital administrators and boards of directors in connection with fire prevention is the following material from the insurance department of the U. S. Chamber of Commerce:

Exposure Hazard:

A study should be made of your premises to determine if they are surrounded by or exposed to property which is inflammable or otherwise hazardous. Reasonable means should be taken to minimize the physical exposure hazard of your property, such as fireproofing doors, windows and outside walls, extending fire walls above roof, and providing non-combustible roofs.

Construction:

A portion of your insurance rate is based on deficiencies in the physical construction of your property. A study should be made of these, such as unprotected elevator and other vertical shafts, horizontal openings, excessive areas undivided by fire walls and concealed spaces, and reasonable methods should be considered for correcting such deficiencies.

Protection:

Without adequate fire alarm and extinguishing facilities, the best located and constructed property may suffer from fire either in building or contents. So-called fireproof buildings are frequently ruined by burning contents. If a careful study is made of the deficiencies of your property in this respect and they are corrected—by installing metal waste and ash cans, fire buckets, chemical extinguishers, automatic sprinkler or standpipe systems—you will find the investment highly profitable.

Occupancy:

Certain dangerous fire hazards are inherent in every business. A study of the nature of your business should be made and proper care given to the isolation of material, machines or processes which may unduly occasion or accelerate fires.

Equipment:

Practically all property must be heated, lighted and ventilated. The equipment necessary for this, in addition to special apparatus required by the specific business or industry, presents a fire hazard. A thorough study of your existing equipment should be made with the idea of improving it where found advisable. New equipment should be studied before purchasing it and necessary improvements demanded.

Management:

A large proportion of American fire waste is caused by the careless accumulation of dirt and rubbish and by disorderly arrangement. A study should be made of the cleanliness of your property. Consideration should be given to the advisability of holding frequent fire drills in order that the employes may be organized to prevent, detect and extinguish fires.

Every property owner or trustee of property should apply the foregoing tests in his factory, apartment house, warehouse, store, hospital, school or home. He also should join any good community movement to carry out this program, to study and have prepared reasonable legal regulations whereby such correctives may be specified by law and finally to encourage public officials in the enforcement of such laws.

TO DIRECT HOSPITAL DIETETIC COUNCIL

The newly organized Hospital Dietetic Council, which is to concentrate its activities upon the special field of the hospital and dispensary, announces the following officers and executive board:

President, Miss Rena S. Eckman, University Hospital, Ann Arbor; first vice president, Miss Bertha Wood, East Northfield, Mass.; second vice president, Miss Mary Foley, Mayo Clinic, Rochester, Minn.; executive secretary, Mrs. John Henry Martin, Charles T. Miller Hospital, St. Paul; treasurer, Miss Margaret Fotheringham, Mercy Hospital, Pittsburgh.

Trustees, Miss Margaret Drew, Northern Pacific Hospital, St. Paul, and Miss Irene Willson, Homeopathic Hospital, Pittsburgh, whose terms expire in 1924; Miss Gertrude Thomas, University Hospital, Minneapolis, Minn. and Mrs. Dorothy Ayers Loudon, 415 Eighth Street, South, Moorhead, Minn., whose terms expire in 1923.

THE BRITISH VOLUNTARY HOSPITALS TODAY

By SIR NAPIER BURNETT, K.B.E., M.D., F.R.C.P., London.

The voluntary hospital system, Great Britain's heritage, is not to be discarded, says Sir Napier Burnett in the accompanying article. Lord Cave's commission in its recent report has crystallized public opinion in favor of the voluntary system and the past year has seen considerable improvement in hospital finances. The practice of industrial workers paying a small portion of their weekly wage to the hospital, known as the contributory scheme, has been found highly satisfactory. Pure insurance schemes are on trial, but have made little headway. "The hospital world has no trade secrets," says Sir Napier, and urges the establishment of facilities for the interchange of information.

THE British voluntary hospital system has been passing through a trying sickness. The prognosis, however, is favorable. I have confidence that the patient will recover.

The commission over which Lord Cave presided did much to steady public opinion. "The voluntary hospital system," says the commission's report, "which is peculiar to the English-speaking peoples, is part of the heritage of our generation, and it would be lamentable if by our apathy or folly it was suffered to fall into ruin." These words crystallized that great mass of opinion throughout the country which from lack of any very definite means of expressing itself is apt to be overlooked. Timely help came from three great funds—

1. National relief fund,
2. Joint war committee of the British Red Cross Society and Order of St. John,
3. Government grant of £500,000

—and the hospitals were given the breathing space they needed to adjust their finances to the altered circumstances of the time. Some there may be who see salvation only in the state. A state system of hospitals finds a place in the official program of the Parliamentary Labor party. For the present, however, the nationalization of hospitals may be regarded as in much the same category as a "levy on capital,"—a subject for consideration, not a settled policy.

In Scotland the feeling has always been strongly against state interference with hospitals. In one English provincial center only has there been an attempt to supersede the voluntary system, and there the experience has not been encouraging. In London such efforts as the Great Combined Appeal show that the hospitals are determined not to give up their voluntary status without a struggle. Here and there an isolated voice of despair may be heard, but it arouses little more than indignation against the speaker.

With the return of financial prosperity and its attendant creation of surplus wealth there can be no doubt that hospitals will prove as attractive a field for the generosity of the rich as in the past. After all, surpluses have to be spent in one way or another and human nature must undergo a profound change before sickness and the struggle against disease cease to excite the practical sympathy of the healthy and the well-to-do. In these circumstances it is impossible to feel despondent as to the future of the voluntary hospitals.

Already there are signs of better times and it is with considerable satisfaction that I quote from the report of the Committee of the King Edward's Hospital Fund for London for 1921.

"There is a common impression that the present financial difficulties of the hospitals are due to a decrease in income, that the charitable public is no longer able to give, and that patients who can afford to contribute are unwilling to give.

The facts are just the opposite. . . . The total income of the London hospitals increased from £1,470,282 in 1913 to £2,566,114 in 1921 (excluding grants from the Voluntary Hospitals Commission), an increase of nearly 75 per cent. The income from subscriptions, donations and similar voluntary sources rose from less than £700,000 in 1913 to over £1,000,000 in 1921. The income from patients' payments increased from £77,900 in 1913 to £420,020 in 1921. . . . . .

"In 1921 the total income of 113 hospitals from normal sources was £2,566,114 while the total expenditure was £2,776,603. Of these 113 hospitals 48 had surpluses amounting in total to £84,681 while 65 had deficits amounting in total to £295,170 making a net deficit of about £210,000.

These figures for 1921 show a great improvement over 1920 when the income amounted to £2,401,312 and the expenditure to £2,784,277 while 40 hospitals had surpluses amounting in total to £82,498 and 73 had deficits amounting in total to £465,463. The net total deficit has thus been reduced by over £170,000."

These London figures are eloquent especially when taken in conjunction with those for the rest of Great Britain. In 1921 in spite of the unprecedented extent of unemployment and general financial depression 51 per cent of the hospitals were able to make ends meet; the corresponding figure for 1920 was 44 per cent.

The figures of ordinary income and expenditure of 95 per cent of the total available hospital beds

in London, England, Wales and Scotland are as follows:

	1920		1921	
INCOME				
London	£2,401,312		£2,566,114	
England & Wales	3,972,943		4,093,777	
Scotland	793,988	£7,168,243	785,870	£7,445,761
EXPENDITURES				
London	£2,784,277		£2,776,603	
England & Wales	4,435,899		4,443,706	
Scotland	872,146	£8,092,322	855,079	£8,075,388
Deficit		£ 924,079		£ 629,627

The year 1921 shows a reduction of deficit of 32 per cent compared with the year 1920.

Mass Contributions

One of the most noticeable developments of the past two years is the general appreciation of the value of mass contributions of small amounts from the working classes and considerable attention has been directed to what are known as contributory schemes. At first there was hesitation due to an uneasy feeling that to accept money from those who were to benefit from their contributions was not in accord with the voluntary system. That feeling has passed away.

Contributory schemes are not of recent origin. One of the earliest dates back more than 40 years ago. It is still in existence, raising £45,000 out of a total income of £100,000. It rests upon a dual basis. Primarily it is an appeal to the heart, secondarily to the head. It is upon this duality that success depends. If the heart is left out, the scheme is reduced to one of insurance pure and simple, and the interest of the voluntary worker cannot be excited; if the head, then there is a return to the old purely charitable gift which can no longer keep hospitals running.

The scheme originates in this fashion. An enthusiastic chairman with the aid of an appeal secretary approaches the great mass of the working population through their various associations, mine lodges, the workmen's clubs, etc., and obtains leave to address meetings. He puts the hospital case forward. He tells his audience what the hospital does. He invites visitors to the hospital. He personally conducts them over the building when they come. If there is no suitable organization, he seizes the dinner hour and gives a ten-minute address, or he goes down at night and talks to a meeting of the night shift men. He appeals to local patriotism. He tells how the hospital comes to the aid of those struck down by accident or disease. He lets it be known that last year the hospital relieved so many men, women and children from that particular mine, shipyard or industry in which the orange box from which he speaks happens to be standing. He states what these patients cost the hospital. Money must come in, he says, if the work is to go on. Each member of his audience appreciates these two facts:

(1) That a comrade or comrade's wife or child may need the help of the hospital at any moment.

(2) That he himself may be struck down by accident or disease, and if there is no hospital, what is to happen to him?

The emphasis is on (1) but (2) enters in. At the end of his address a resolution is passed that 1d or 2d (two cents or four cents) per man be given each week to the hospital. Whenever possible the cooperation of the employer is enlisted to allow the deduction to be made at the pay office and sent in each quarter to the hospital. This method of raising money is highly satisfactory. Some hospitals receive as much as 45 per cent of their ordinary income from it. As a rule a contributor if suffering from a complaint suitable for hospital treatment is admitted free of charge. Custom, however, varies. In some cases a contribution carries with it an explicit guarantee. In others there is no guarantee, though in most there is a tacit understanding.

In essence the successful schemes are the same; but in minor respects they differ according to locality. The methods and machinery for an agricultural area differ somewhat from those suitable to an industrial.

Those contributory schemes which follow more or less insurance lines and which pay the hospital the full cost of treatment of only those contributors actually admitted are still on trial, and so far have not made much headway.

More Attention Paid Administration

Today in England far greater attention is being paid to the science of hospital administration. Boards of management and hospital secretaries realize that the old stock assurance, "no further economies compatible with efficiency are possible," will not do. The public requires facts and figures, not assurances. The stress of competition has forced commercial organizations to devise new methods of management and control of costs. The increased interest of the public as well as financial stringency is gradually teaching the same lesson to the hospitals. It is now known that there is something to be learned from business organization although as yet no definite system has been evolved.

Better methods of control of consumption are being worked out. Some more convincing basis than "cost per occupied bed" is being sought. There is much in a name and the man who can invent a term for a system analogous to that known in commercial life as "cost accounting," and applicable to hospital work will earn the gratitude of all. Hospitals have little or nothing to do with

such matters as the location of losses and profits, the comparison of methods of manufacture, bases for tendering, etc. Cost accounting, however, is not confined to these purely commercial operations. It goes further. It places the power of locating waste and inefficiency in the hands of a manager and it creates interest in the minds of intelligent employes in their work. The problem is to find some system applicable to hospitals that will give similar results. I have every confidence that in time this problem will be solved.

Before, however, asking boards of management generally, to incur expense in the clerical labor involved in any new system it is necessary to be able to do more than make out a paper case in its favor. Some remarkable and praiseworthy efforts made by the administrators of individual hospitals have shown gratifying results and justify the belief that there is a side of hospital work to which business methods may be applied with success. I would, however, strongly deprecate any premature action. Good systems are of slow growth and advance may be retarded by enthusiasts who expect too much themselves and sometimes lead others on to disappointment.

Cooperative Buying

Much the same may be said of cooperative buying. In time I feel that this too will in a large measure be established, but at the moment boards are slow to move. Advance would seem to lie along the lines of greater interchange of information regarding purchase and prices between hospital administrators.

To buy supplies well is as important as to use them economically when bought. The argument that is too frequently put forward by word of mouth—I do not think I have ever seen it in print—that it is an obligation on a hospital board to purchase goods from their local supporters, will not bear examination. Price and quality are the criteria, not locality. Subscriptions given to hospitals in order to obtain custom would be an exploitation of charity. I beg leave to doubt the prevalence of the custom, as I beg leave to doubt the validity of the argument that subscriptions would be withheld unless orders were secured. Good buying is a skilled operation and deserves a greater share of the attention of the managers of hospitals. It is difficult for the smaller hospitals to obtain as advantageous terms as the larger and it is to these that some central organization might render great service.

Alterations in the sources of support have brought into prominence the necessity for improvement in the system of registering patients. Details formerly of little moment must now be carefully registered and summarized. General statements, bald numbers, are insufficient. The appeal department requires complete, accurate and up-to-date information with regard to the work done. The clerical labor means increased cost. The expense, however, is justified by the results.

Justified too by results would be an improvement in the annual reports which boards of management issue to the public. These for the most part are uninteresting and incomplete. The casual visitor to a large modern hospital is astounded at the extent and variety of its activities, and even in the smaller hospitals there is going on day after day work of which the public, speaking generally, has little or no knowledge. All that the public knows is that the cost per bed is going up, and waste or extravagance is inferred.

The work of a large hospital is of absorbing interest to all, yet the scientist, the student of human nature, the general public, will find in the annual report little food for thought. One of the most interesting and human documents in this connection that I have recently come across is the report of the almoner at one of the large London hospitals. Unfortunately it was published not in the general report of the hospital but as a separate pamphlet and it has only a very limited circulation.

Need for Paying Wards

There is a large class in England sadly unprovided for; a class that is neither rich nor poor, yet on whose purse the cost of providing treatment falls heavily. When sick they have either to suffer at home or to lie at one of the private nursing establishments, where the facilities for diagnosis or treatment are not in any way comparable to those of a large hospital and where the general weekly charge is often far above their means.

Few of the larger hospitals have any surplus of beds, and the provision of paying wards would mean building. However, the cost of building an annex of ten beds would not be excessive, and in any case an addition might be made to the weekly charge to cover interest on capital expenditure. It is here that insurance might most usefully step in, arrangements being made by the insurance companies with the hospitals for the admission of those who had taken out policies covering the cost of treatment. The payment of medical or surgical fees is a separate matter altogether and should be the subject of private arrangement between patient and doctor.

The London hospitals are fortunate in having a central fund—King Edward's Hospital Fund for London—which annually distributes large sums

of money and which prepares and circulates valuable hospital statistics.

No such organization exists to help provincial hospitals. At the annual meeting, however, of the British Hospitals Association at Liverpool in May, 1922, a resolution was passed approving of the formation of such a fund and asking the council of the association to take the matter into active consideration. The request embodied in the above resolution of the assistance of a central fund, coming as it does from the hospitals themselves, is one that cannot lightly be put aside. Altogether outside the financial advantages that would result from such a fund, there is this most important aspect of it—it would aid greatly in breaking down that disastrous policy of isolation that has done more than anything else to retard hospital advance. In the past hospital administrators have worked in almost total ignorance of any institution except their own; not from lack of desire to know, but solely because there has been no channel through which they could readily get at the knowledge. I can speak from intimate personal experience of the reality of this desire on the part of hospital boards and hospital officers. Were a central fund to be (as I hope) established, its existence would be more than justified as a bureau of information on matters relating to all branches of hospital work—construction, equipment, prices, standards of consumption, standards of staff, schemes for raising money and so on. I hope that in my next report of the hospitals of Great Britain I may be able to say that the establishment of a central fund for the provinces is an accomplished fact.

Insufficient Attention to Feeding

The feeding of a patient is one of the most important factors in treatment, yet it is one to which in this country at any rate, insufficient attention has been given. The surgeon lavishes the utmost care upon his technique, his instruments, his appliances and the dressings he uses. The quality of the lint, gauze or wool is carefully considered by him. The physician exercises similar care in the domain of drugs. Not only must these conform to a standard of purity that might almost be called absolute, but they have to be administered in quantities that call for great accuracy in measurement.

Nothing is left to chance. All is carefully watched and recorded. I hold that the kitchen is as important to the medical profession as the laboratory, that the quantity, quality and the method of presentation of food to the patient are as important as dosage and the quality of the drugs or the variety of the dressings. The ordinary hospital dietary provides breakfast in many cases insufficient. Were it not for the gifts of eggs, butter and jam brought in by patients' friends, there would not be enough. Whether the patient should be fed on English or foreign meat is generally decided by the lay committee on the ground of cost. A mistake in the dispensary is always a subject of grave inquiry. The quality or the cooking of food must reach a high pitch of badness before inquiry is held or censure given. The routine hospital division of diets into ordinary, special and milk, even when supplemented by haphazard additional extras, is inadequate. Cost has played too great a part in the feeding of patients and quality too little. I confess that I am not impressed when I am told that the average cost of feeding a patient works out at 11d or 1/ per day. I would strongly urge that the doctors should have at least as much latitude in the feeding of their patients as in the prescribing of drugs. The monotony of institution feeding cannot but react unfavorably upon the patient. I would like to see in hospitals a kitchen committee going into such matters as the quality of the provisions bought, the equipment and staff of the kitchen, the preparation of food and its presentation to the patients, and the preparation of special diets; a standing committee with regular work to do, not merely one called together when complaints are made and it is necessary to defend the hospital in the eyes of the public.

I would like to see the example of America followed, and a trained dietitian introduced into each large hospital to assist the doctor and work out for him diets suitable to the complaints of the individual patients. The bulk of patients, of course, require nothing more than good plain food well cooked, but in every hospital there are those to whom feeding may make all the difference between cure and discharge unrelieved. In few hospitals is there any machinery to provide that which may be as essential to cure as many of the expensive instruments and devices readily (and rightly) granted to the operating theater. The cost of food per occupied bed might go up. If so the money would be well spent.

I welcome this opportunity of telling our friends in America something of what we are doing here. From my recent visit to America I saw much and learned much. In the hospital world there are no trade secrets. There is need, however, of facilities for the interchange of information.

"The strength of a nation is in its multitude, not in its territory; but only in its sound multitude, and it has been the madness of economists to seek for gold instead of life."—John Ruskin.

RADIATION THERAPY IN THE MODERN HOSPITAL

By HENRY SCHMITZ, M.D., F.A.C.S., Chicago.

TREATMENT of diseases with radiations obtained from x-rays and radium has assumed great importance. Probably no other branch in modern scientific medicine has received a like degree of attention and interest from the medical profession and the laity. No other specialty in medicine demands higher skill.

The diseases for which rays are employed are many. They comprise the various skin lesions; many forms of blood diseases, as spleno-myelogenic leukemia, polycythemia vera; the diseases of the blood forming organs and the glands, for instance the lymphglands, the bone marrow, the spleen; the diseases of the ductless glands, as the pituitary, the thyroid, the thymus, the ovaries, the testicles; the tuberculous infections of the bones, the glands, the lungs, the abdominal and the pelvic organs; other infections such as pseudo-leukemia, actino-mycosis; and finally the vast field of benign and malignant new-growths. It is almost impossible to enumerate all the affections to which radiations are applied either to give amelioration or to obtain positive cures.

Cancer diseases have received the most interest from the medical and allied professions. The frequency of occurrence and the unsatisfactory results of the methods of treatment formerly employed account for this intense interest. The writer does not desire to create the impression that surgical treatment of cancer is not efficient. Quite the contrary! It is indicated and will permanently cure these cases in which the malignant growth is absolutely confined within the organ or tissue of primary occurrence. Only then can surgical treatment eradicate all the cancer tissue, hence render a permanent cure.

Therefore the writer intends to discuss the treatment of cancer disease from the viewpoint of a surgeon and radiologist. A large proportion of cancer cases can be benefited only by the use of massive radiation treatment.

Must Hospitalize for Radiation Treatment

The subject may be discussed by perusing the following questions: Does radiation treatment of cancerous tumors require hospitalization of the patient? If so, how may the hospitals meet the requirements for highest efficiency in carrying on the treatment?

Modern massive radiation treatment necessitates a careful examination of the patient and a proper preparation and skillful nursing before and during the treatment and convalescence. The history must include all the presenting symptoms, the time of onset and the physical characteristics of the disease, as well as the personal history and family history; while the examination must note the general state of health and a careful special examination. The latter should state the extent of the cancer disease, whether it is clearly localized, has invaded contiguous or distant tissues and organs, or has become generalized.

Localized malignant disease justifies a surgical eradication if it is amenable to such treatment. Cancers that cannot be attacked with surgical measures or that have involved contiguous or distant tissue and organs should not be subjected to surgical treatment as it is unlikely that all of the diseased tissue can be eradicated. Such cases should be transferred to radiation therapy which offers better results. Generalized carcinomata, of course, must be treated symptomatically. They cannot be temporarily or permanently benefited either by surgery or radiation therapy.

The importance of the preceding paragraph must be clearly emphasized. The indications for surgical therapy of carcinomata are so clear cut that one rightly should assume that only the clearly localized cancers are treated in the surgical clinics. If we would consider in our actions the interests of the patient first we would act accordingly and soon would obtain much better results in the surgical statistics. The majority of patients surgically treated would then recover permanently. The efficacy of the surgical treatment would markedly advance. The patient would readily consent to an operation, knowing it promises him permanent relief. Quacks, osteopaths and Christian Scientists would lose a large clientele.

Preparation of Patient for Treatment

Operations performed on advanced and generalized carcinomata only add to the unbearable misery of these unfortunate beings. Cancer cells are disseminated, tissue breakdown with subsequent fistulae formation is hastened. Instead of relief, a multiplicity of symptoms is added. On the other hand radiation therapy properly applied in advanced carcinomata frequently relieves pain especially in bone metastases, arrests bleeding, improves edematous swellings in the extremities of shoulder and arm in breast cancer, and of the groin and legs in pelvic cancers, etc.

Preparation of the patient for treatment comprises a thorough evacuation of the gastro-intes-

tinal tract; the diet before, during and after treatment should be liquid. The patient also should receive daily during the same period of time 30 grain doses of sodium bicarbonate and the juice of three oranges every four hours; water should be given freely per mouth, a hypodermic injection of ½ gr. of codeine sulphate given one-half hour before the treatment should place the patient in the mental and physical equilibrium necessary for the prolonged ordeal. During and following the days of treatment the diet must remain the same. If vomiting and diarrhea are severe they must receive proper attention consisting of rest in bed, large doses of bismuth subnitrate and sodium bicarbonate, rectal flushings with starch water containing tincture of opium. A dose of castor oil will often work wonders if the patient can retain it. Rectal feeding or hypodermoclysis may be necessary in obstinate and severe cases. Tincture of opium should be added to the rectal nutritive enema to arrest peristalsis. Finally the patient must be nursed during convalescence by being given nourishing bland foods, plenty of sunshine and tonics, particularly iron and arsenic. Daily routine blood and urine examinations and recording of temperature, pulse and respiration are important. A return of the blood to normal is perhaps the best sign of a successful outcome of the treatment and the subsequent favorable course of the disease.

It is evident, therefore, that patients requiring radiation therapy should be hospitalized. Hence it is necessary for the hospital to provide the facilities to carry out such treatment. They comprise the proper equipment, the necessary space for the housing of the department and the proper personnel.

High Voltage for Deep-Seated Cancer

Extensive or deep-seated carcinomata can only be treated with x-rays obtained from high voltages. Such apparatus is very expensive. The voltages permissable in the operation of x-ray tubes depend on the load the latter may safely carry. This limit at present is 200 to 220 kilovolts maximum. When manufacturers can furnish tubes which can carry higher loads the apparatus must be able to furnish voltages to meet this requirement. The intensity of the x-rays depends on the voltage. The intensity of the hardest rays is especially increased by the employment of higher voltages. In spite of stronger filtration, an erythema is obtained in a very short time. By a correct combination of voltage and filter a hard and homogeneous radiation is obtained, which is necessary to attain the desired action in the depth of the body. Let us consider the possibilities of two different radiations of low and high voltages:

A 140 kilovolt x-ray applied with the proper factors, i. e., 5 milliamperes, 65 cm. focus skin distance, 0.5 mm. copper plus 2 mm. aluminum filter, and fields of 20 cm. sq., requires on an average a fourteen hour application of x-rays using four ports of entry in the treatment of cervical carcinoma in a patient having an antero-posterior diameter of the pelvis of 18 cm. A 200 kilovolt x-ray of 5 milliamperes, 50 cm. focus skin distance, 1 mm. copper plus 1 mm. aluminum filter, requires only four hours with two ports of entry; and a 240 kilovolt with the same factors as the 200 kilovolt x-ray requires about three hours. It is a fact observed innumerable times in our work that any kilovoltage can give radiation sickness. However, the longer the time duration for the application of the treatment, the more marked and intense is the radiation toxemia following.

280 Kilovolt Transformers Recommended

Hence it follows that we must recommend transformers that give 280 kilovolts and the output of which can be increased by connecting additional units in series to increase the output when better Coolidge tubes are provided. Otherwise a transformer that is modern today may be antiquated in the near future.

Other important parts of the equipment are the table and tube stand. They should be made preferably of wood without any metal parts and also be provided with means to protect the patient from all stray radiations that emanate from the tube or arms.

The ceilings, walls and floors of the room in which the tube is operated must be carefully and properly lined with lead sheeting of a thickness of 3/16 of an inch; while the observation window for the operator should consist of three thicknesses of standard lead glass. Ventilation is very important. Large ventilators must be installed to change the air in the treatment room rapidly and continuously.

How much space is necessary for transformer, tube stand and table, and room for the operator?

In Fig. 1 are the floor arrangements of the radiation therapy rooms at the Mercy, Augustana and St. Mary's Hospitals in Chicago which are under the author's direction.

Problems of Installation Vary

The problems of installation were different in each institution. Though we can operate two tubes from each transformer at the same time, we did not deem it advisable to do so now. We can treat in each institution four patients every other day, provided the tumor can be successfully ra-

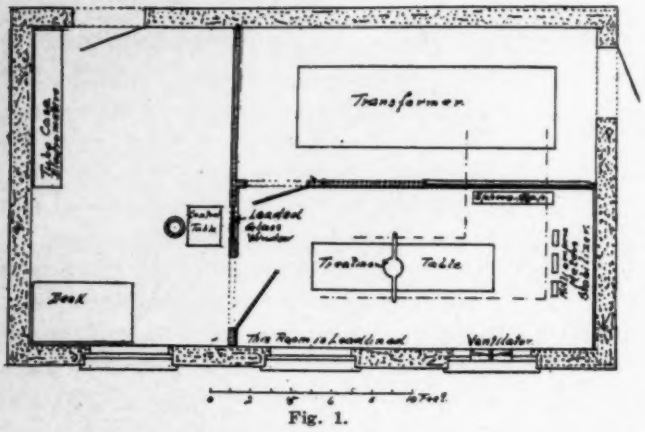


Fig. 1.

diated through two fields or ports of entry. This is sufficient for the greater number of cases. It is only exceptionally that we must use more than two fields.

Who should provide the transformer? This depends entirely on circumstances. The hospital may do so, or the radiologist may incur the expense of installation. The remuneration for these arrangements will be discussed in another paragraph.

The supervision and conduct of a radiation therapy department must be entrusted to a physician. The latter must possess a thorough clinical training and he must understand the principles of physics. The clinical training is absolutely necessary, for the success of the treatment depends on the clinical interpretation by the physician. He must be a surgeon possessing a complete knowledge of the pathology, the metabolism and the clinical aspects of the disease. He must master the physical laws of radiation. At least he should be able to measure intensities, determine their percentual values, interpret graphs of absorption and calculate the radiation intensities for each individual case coming for treatment. In short he should possess a knowledge of physics which enables him to apply the researches of the physicists to the technique of radiation therapy.

He also must know the transformer and the accessories in order to keep them in the best order and running condition. Only then may expensive repairs be avoided, the output of transformer and tubes be kept at its best, and progress conform to the rapid advances in his science. A man thus prepared will rank as a leader in his chosen specialty and the clinical results will be of a correspondingly high order.

Being occupied with so many diversified problems as the clinical examination, the treatment and follow-up system, the pathologic and biological aspects and the physics and technique of radiation therapy, the director of the radiation therapy department must have a properly trained technician. He may best be chosen from the nursing profession, a male nurse being preferable. The latter can arrange the patient on the table, insert retention catheters into the bladder in pelvic cases and attend to the many demands made by the patient during the prolonged treatment. He must have some knowledge of anatomy, and should observe the conditions of pulse, respiration and temperature. Trained properly and possessed of an unimpeachable fidelity to his duties, he will carry out the treatment faithfully as directed by his chief. His training may be given by the medical director. If properly trained and instructed the technician will be an indispensable and valuable part of the department.

Large Clinics Should Have Physicist

Progress in radiation therapy depends on the correlation of the science of physics to medicine. In large clinics where the medical examinations and biological researches consume all the time of the medical director it is advisable to attach a physicist to the clinic. He must assume the researches in physics, determine the intensities of x-rays for all the variable factors and keep tubes and transformers in the highest state of efficiency. It is evident that his researches must be submitted to the medical director to determine their value in the clinical application of the rays. Such work entails further expense for measuring instruments, as electroscopes, electrometers, waterphantoms and photometers.

The salary of the physicist and the expenses for the laboratory of physics could be met by the establishment of a teaching institution for the instruction of physicians, physicists, and technicians in the physics and therapy of x-rays and radium. The physicist could also be engaged by the smaller clinics or hospitals where he would standardize the apparatus and determine all the factors necessary for a correct radiation technique.

Having discussed the general aspects of radiation therapy, the arrangement of the treatment room, and the personnel, we finally may discuss the relation of the hospital to the department. Various solutions of this problem offer themselves.

The medical director may install at his expense the transformer and accessories, pay the repairs and the salaries for help. The hospital in its turn will agree to refer all the patients needing radiation treatment to this department. The diagnostic department, of course, must limit its work entirely to that of examination by the x-ray. The hospital also furnishes the electric power, the

linen, the cleaning and repair of the room and the furniture, such as examining tables, carts and chairs. The physician remunerates the hospital by a proper rent which is the only revenue the hospital receives. A better plan would be to have the hospital participate in the profits by a stipulated percentage it is to receive from the income of the department. If the physician pays for the installation and upkeep and collection of the fees, a fair percentage would be from 10 to 20 per cent. The hospital in addition also receives the income from the hospital services rendered the patient.

When Hospital Owns Equipment

In the second plan the hospital would assume all the expense of installation, upkeep and running of the department, including the salary of the technician, the expense of bookkeeping and the collection of fees. It would engage a properly qualified medical director who should be guaranteed a definite monthly salary and a participation in the net profits. It must then be assumed that this director visits the hospital daily, examines the patients referred to the department for treatment and leaves written instructions as to the proper methods of treatment. The technician, of course, must be thoroughly familiar with the technique and be able to carry out the treatment according to the written orders.

The director will have to engage in some specialty of medicine. In some cases the application of radium is preferable to that of x-rays, and in many cases of deep-seated carcinomata radium must be used in combination with x-rays. He might give these treatments on his own account and is thus insured of an independent income. The supervision of the x-ray treatment department under these circumstances offers a happy solution of the entire problem.

In small institutions the diagnostic x-ray work may be performed in the forenoon and the treatments given in the afternoon or vice versa. It is understood that equipment designed solely for diagnosis cannot be used for the treatment of carcinomata. The x-rays obtained from the 80 to 100 K. v. transformers are so soft and possess such a low power of penetration that it is practically criminal to use such transformers for the treatment of deep-seated and massive cancers. The patient is not benefited thereby, but on the contrary the tumor is stimulated to increased and more rapid proliferation, and hence rendered worse.

Department Budget

The budget of a modern department of radiation therapy should include the sinking fund, the repairs, and the salaries.

The expense of installation varies depending on the kind of transformer chosen, the number of tubes necessary, the accessories, etc. The average expense will be from $8,000 to $10,000. If the apparatus is given a life duration of five years with a yearly capacity of four hundred patients then the sinking fund would be $2,000 a year. If six hours of actual running time are consumed daily and the life of a tube is ninety hours (more nearly sixty hours) then the repair for tubes at $140 each amount for 300 working days to $2,800 yearly. The salary of the technician is $1,800. Incidentals for repairs on transformer, measuring instruments may be assumed to be $1,000. If 400 patients are treated yearly and 200 of these pay an average of $100 each, then the gross income would be $20,000.

Hence:

Sinking fund	$2,000.00	Income	$20,000.00
Tube repair	2,800.00		
Salary	1,800.00		
Incidentals	1,000,00		$20,000.00
	$7,600,00		7,600,00
			$12,400.00

The hospital receives $2,480 or 20 per cent of the net profits or the superintendent receives $4,000 or 20 per cent of the gross income.

Conclusions

1. Hospitalization of patients to be treated with high voltage x-rays for large and deep-seated carcinomata is necessary on account of the severe reactions observed after such treatment.

2. It follows that hospitals should provide for radiation therapy departments. Thereby the results of the treatment of malignant neoplasms in these institutions will be improved.

3. The requirements of such a department, i. e., installation, organization and administration have been described. The approximate income for each of the two plans of installation have been given.

You may be inconvenienced by the loss of your horse or your automobile if you have left the doors open to thieves, but there is always a chance you can recover your stolen property; however, when for lack of sanatorium facilities or proper treatment a person dies of tuberculosis, he is gone, and no attempt of anti-tuberculosis work can bring him back. You might be justified in taking chances on leaving your stable open, but failure to provide sanatorium facilities is an inexcusable neglect.—*Bulletin of the Ohio Public Health Association.*

A true man never frets about his place in the world, but just slides into it by the gravitation of his nature, and swings there as easily as a star.—E. H. Chapin.

MENTAL HYGIENE IN 1922

By FRANKWOOD E. WILLIAMS, M.D., Medical Director, The National Committee for Mental Hygiene, New York.*

THERE can be little question as to the outstanding event in the field of mental hygiene during the year 1922. Unquestionably it was the adoption in Cincinnati of a comprehensive five-year mental hygiene program. Millions of dollars are spent annually by social agencies in cities of the country in activities that are almost wholly ameliorative. It is an astounding fact; not astounding that these agencies should depend so much, but astounding that they should need to spend so much, for no one acquainted with the facts questions the need.

In a certain city—not the largest in the country—there are over 300 social agencies. One hundred and twenty-four of these raise the funds for their budgets in a joint effort similar to the Community Chest plan. These 124 agencies, less than half of the agencies in the city, have required for their budgets this year over $3,000,000. It was not until November that this amount after a great effort was finally raised. It is now another year and $3,000,000 will be needed. The more progressive agencies in this city will claim that their programs are socially constructive; and in a measure it is true that they are. But all that will be spent of this $3,000,000 on efforts that are not purely ameliorative will be but a drop in a bucket—probably a drop in an ocean, for $3,000,000 make a pretty big bucket.

Cincinnati's Five-Year Plan

For a period of five years, Cincinnati is to try a new plan in handling its social problems. A survey completed early in the year showed how closely interwoven are problems of social maladaption and mental hygiene[1]. This had, of course. been known before, but data on such a large scale have probably never before been gathered. The survey which was under the direction of Dr. V. V. Anderson included, aside from the study of facilities of certain social agencies and institutions, a careful examination of the "run-of-the-mine" of the cases coming in contact with the Ohio Humane Society, the Associated Charities, the Bureau of Catholic Charities, fifty dependent families of the United Jewish Social Agencies, the "run-of-the-mine" of the Juvenile Court, the Opportunity Farms for Boys and Girls, Hamilton County Jail, city and county infirmaries, the Home for the Friendless, the Catherine Booth Home, the Children's Home, the General Protestant Orphanage, boarding homes for children, and finally, over 4,000 school children. In addition, a study was made of the careers of 322 feeble-minded young adults in Cincinnati, 201 of whom had formerly been pupils in the special classes for the mentally defective maintained by the city and 121 of whom had been classified as mentally defective by the Vocation Bureau during 1917-1919.

One might point out in passing that the data gathered in this latter study confirmed the view that has been growing of recent years that the feeble-minded are not necessarily potentially delinquent, but that many of them are capable of living happy and useful lives in the community. It was found that approximately half of those studied—an unselected group practically unsupervised—were gainfully employed in industry and were providing no serious social problems. Neither were these individuals limited to odd jobs or simple day labor. There were eleven salesmen or saleswomen, eight machinists, six construction workers (building trades), five printers and apprentices, sixty factory workers, twelve messengers and bell boys, eleven doing housework for others, etc. Approximately half of those in industry were earning wages of $15 a week or more. The report states, "We found that those individuals not handicapped by personality difficulties and character defects received much higher wages than those so handicapped. We found, also, that those who were out in industry were far less likely to be handicapped by character defects and personality difficulties than those who were unemployed. Approximately half of those who were out in industry have remained in their present positions for longer than a year. We found quite a large group who had remained in their present jobs for two and three years. Here, as elsewhere, we found that the battle was in favor of those who were not handicapped by psychopathic conditions and personality difficulties[2]."

So evident was it from this study of social problems in Cincinnati that the handling of many of these problems was mere fumbling unless the mental aspect was taken into consideration—as Dr. E. E. Southard had pointed out several years ago in a review of Mary E. Richmond's *Social Diagnosis*—that the workers of Cincinnati were convinced that some means must be found of attacking these problems on that basis. At the request of the Mental Hygiene Council of the Federation of Health a five-year mental hygiene program for the city was prepared. This program unites about a central psychiatric clinic the various social agencies, the schools, the courts, the correctional institutions and various faculties of the University of Cincinnati. The plan was

*Dr. Williams' annual review article arrived too late for publication in the January issue.

[1]Anderson, V. V.: The Mental Hygiene Council of the Public Health Federation, 1922, p. 131, a report of the Mental Hygiene Survey of Cincinnati conducted by the National Committee for Mental Hygiene.

[2]Potter, Howard W.: Personality in the Mental Defective with a Method for its Evaluation. Mental Hygiene 6:487-97, July, 1922.

adopted and early in November the Community Chest board appropriated $30,000 for the first year of work.

Cincinnati thus becomes the first city in the country to attack aggressively the source of many of its difficulties, and during the next five years the attention of workers throughout the country will be directed toward this social experiment in Cincinnati. Too much must not be expected, for obviously a clinic the size made possible by the budget allowed cannot manage all the problems of Cincinnati. It is a generous budget for a beginning but it is but a drop in a great body of murky solution and a miracle of clarification cannot be expected. But it is a step in the right direction and sufficient good should come out of it to warrant a gradual increase in facilities until the size of the tool will be commensurate with the size of the job.

This step in Cincinnati means that we have come a long way. Organized work in mental hygiene did not begin until 1912 when the National Committee for Mental Hygiene, which had been formed in 1909, began its work. The original program of the National Committee for Mental Hygiene was a modest one—to help raise the standard of care and treatment for those suffering from mental disease. This item still remains one of the major items in the program of the National Committee, although that program has been extended year by year as the logic of the situation has demanded.

In tracing out the thread of mental maladjustment, as it leads back from the hospital into the community, psychiatrists and psychiatric social workers have found themselves facing problems in delinquency, in education, in the home, the social agency, and the like. Each step has led to the next step, so that there has been a gradual unfolding and a mental hygiene program, not in the terms of any one organization but in social thought, is coming to be closely identified with the large questions of human behavior. We are approaching a study of man as man—a study that has never been made. Since the time men became sufficiently numerous on the earth to make it necessary for them to take cognizance of one another, we have been setting up arbitrary standards by which to judge him; we have erected codes and laws and customs by which to measure and coerce him; we have poured out pity and "love" upon him and also hate and scorn; we have made him lovely toys, such as aeroplanes and phonographs and tried to make him happy, and when he was not happy we have tried to "save" him from something and for something—we have done all these things and more, and yet never have we seriously on any proper scale made an attempt to learn really what he is and to understand him for what he is, his possibilities for what they are, his own desires and interests be they what they may. We are approaching nearer to the time when arbitrary standards, built up without knowledge but as the result of empirical judgments, will be put aside for a time, and man will study man for what he is in the same way as he now studies other less important objects.

World Interest in Mental Hygiene

Interest in this matter is not, of course, confined to this country. It is not a matter that concerns a single organization or a single profession or a group in a profession, but a matter that must needs interest and concern men everywhere. There are many straws that show the way in which the wind is blowing. One of them is the crystallization of interest that produces such organizations as mental hygiene societies composed as they are of physicians, psychologists, educators, sociologists, economists and social workers. There are now national mental hygiene organizations in England, Canada, France, Belgium and South Africa. One is being organized in Australia and interest has been shown in Italy, Germany and Czechoslovakia. At the meeting in November of the Latin American Congress at Havana, a Latin American Committee for Mental Hygiene was formed on the motion of Dr. G. Reidel, director general of the State Government Hospital for the Insane, Rio de Janeiro. The British National Council for Mental Hygiene was formed in May with Sir Courtault Thomson as its first chairman. An international Congress of Mental Hygiene, to be held in this country, is planned for 1924.

Other straws are the development of courses in mental hygiene and human behavior in training schools for social work; special courses that are offered in such schools as the New School for Social Research in New York; extension courses, largely attended, at Boston University and Brown University; the establishment by the 1922 legislature of Massachusetts of a Division of Mental Hygiene in the State Department for Mental Diseases; the session devoted to mental hygiene at the meeting of the National Education Association in July, and of the sessions in the Education Division of the British Association; the increased attention being given to the subject at meetings of national medical and sociological associations; the increasing interest of public health officials[3-4].

Two other events of the year should not go un-

[3]Kelley, E. R.: Two Twilight Zones in Health Administration. American Journal of Public Health, 12:563-67, July, 1922.

[4]Emerson, Charles P.: The Next Step in the Mental Hygiene Movement, Mental Hygiene, 6:257-62, April, 1922.

recorded—the organization of the traveling psychiatric clinics for juvenile courts[5], and the establishment of a habit clinic for children in Boston[6]. Two traveling clinics have been organized by the National Committee for Mental Hygiene during the year, the first of which after a period of several months in the juvenile court of St. Louis is about to move to a second city—Norfolk, Va.—the city of St. Louis having arranged to take over and carry on the work of the clinic; the second clinic is at the present time working in the juvenile court at Dallas, Texas. At the completion of its work it will move to a third city not yet selected.

Campbell[7], Richards[8], Glueck[9], Kenworthy[10], Blumgart[11], and others have been pointing out for some time the relation that exists between the early faulty habits of children and later difficulties in adjustment. That data might be gathered in regard to the home environments under which children were forming these habits, the Massachusetts Society for Mental Hygiene early in the year made a survey of homes in a representative metropolitan district. A portion of the data gathered will be found in an article, little short of amazing, "The Child and the Home," by Dr. Marianna Taylor, in the October, 1922, *Mental Hygiene*. These data and the data that have been piling up from the various psychiatric out-patient departments, psychopathic hospitals and clinics, have led to the formation in Boston, under the direction of Dr. Douglas A. Thom, formerly chief of the out-patient department of the Boston Psychiatric Hospital, of a clinic where children who have developed faulty mental habits can be studied and the habits corrected. The work of this clinic, like the work in Cincinnati, will be followed closely by all those interested in children and in mental hygiene.

Significant Books of the Year

A report of the year should not close without mention of certain significant books that have been published. There are several of these and for the reason that each deals with a different aspect of the subject they cannot well be compared and arranged in an order of importance. James Harvey Robinson's *The Mind in the Making* is to be read; Paton's *Signs of Sanity* should have thoughtful consideration; Mary E. Richmond's *What is Social Case Work?* brings a mental hygiene point of view to social work; Myerson's *The Foundation of Personality* has an important place; May's *Mental Disease as a Public Health Problem* brings together in one book facts that previously have been scattered and difficult to assemble.

But one reserves chief comment for *The New Psychology and the Teacher* (Seltzer) by Dr. H. Crichton Miller and *The Kingdom of Evils; Psychiatric Social Work Presented in One Hundred Case Histories, together with a Classification of Social Divisions of Evil* (Macmillan) by the late Dr. E. E. Southard, director of the Boston Psychopathic Hospital, and Miss Mary C. Jarrett, formerly chief of social service at that hospital. The manuscript for this book was practically finished at the time of Dr. Southard's death. As its title indicates the authors have told here in a simple narrative way the essential facts in the life stories of one hundred unfortunate individuals who, because of disease, ignorance, bad habits and vices, legal entanglements, or poverty, came to the Psychopathic Hospital. They tell of what was done and of the result, claiming success where there was success and admitting with equal frankness failure when it occurred. Southard's interest in this book was very great, greater, perhaps, than in anything else he ever wrote, and the year is enriched by its publication.

Dr. Miller brings to the writing of his book his experience as the director of an educational clinic in London. His point of view is that of psychoanalysis—in the broader sense—and it gives as no other single book we know, an excellent background for the study and understanding of children. The book is equally suitable for either parents or teachers. It might well be on the required reading list of all normal schools and teachers' training courses.

[5]Williams, Frankwood E.: Mental Hygiene in 1921, The Modern Hospital, 18:69-71, January, 1922.

[6]Thom, Douglas A.: Habit Clinics for Children of the Pre-school Age. Mental Hygiene, 6:463-70, July, 1922.

[7]Campbell, C. Macfie: Experiences of the Child; how they affect character and behavior. Mental Hygiene v. 4, 312-19, April, 1920.

Campbell, C. Macfie: Nervous Children and Their Training, Mental Hygiene, v. 3, 16-23, January, 1919.

[8]Richards, Esther Loring: The Role of Situation in Psychopathological Conditions. Mental Hygiene, v. 5, 449-67, July, 1921.

Richards, Esther Loring: Some Adaptative Difficulties Found in School Children. Mental Hygiene, v. 4, 331-63, April, 1920.

[9]Glueck, Bernard: Psychiatric Aims in the Field of Criminology. Mental Hygiene, v. 2, 546-56, October, 1918.

[10]Kenworthy, Marion E.: Extra-Medical Service in the Management of Misconduct Problems in Children. Mental Hygiene, v. 5, 724-35, October, 1921.

[11]Blumgart, Leonard: Observations on Maladjusted Children. Mental Hygiene, v. 5, 327-41, April, 1921.

NEW COURSE IN PHYSIOTHERAPY

A second course in physiotherapy will be given at Walter Reed General Hospital, Washington, D. C., beginning February 27 and extending over a period of four months, it is announced. It is open to women who have had at least a two-year training in an approved school of physical education and is in charge of Major James B. Montgomery, director of physiotherapy.

Quarters, rations and laundering of uniforms are provided by the hospital and a salary of $15 a month is paid students. No tuition fees are charge. The course will consist of lectures, recitations, and practical work in the clinic. Among the subjects studied are the following: anatomy and physiology, bandaging, electrotherapy, hydrotherapy, remedial and therapeutic exercise, massage and thermotherapy.

ROYAL VICTORIA HOSPITAL'S METABOLISM SERVICE

By E. H. MASON, M.D., and H. E. WEBSTER, Superintendent, Royal Victoria Hospital, Montreal, Canada.

THE metabolism service of the Royal Victoria Hospital was organized in 1917 and housed in a remodeled separate building previously used as an isolation ward. This building is connected to the hospital by a short covered corridor at the central part of the main building, thereby making the ward convenient to all parts of the hospital.

The general appearance and floor space is well shown in the accompanying photographs. In detail the total floor space is divided as follows:

Through the center of the building there is a main corridor with rooms opening upon both sides. At the back is the laboratory. The respiratory laboratory, a part of the metabolism service, is located in another part of the hospital, at a point convenient for the transfer of bed patients.

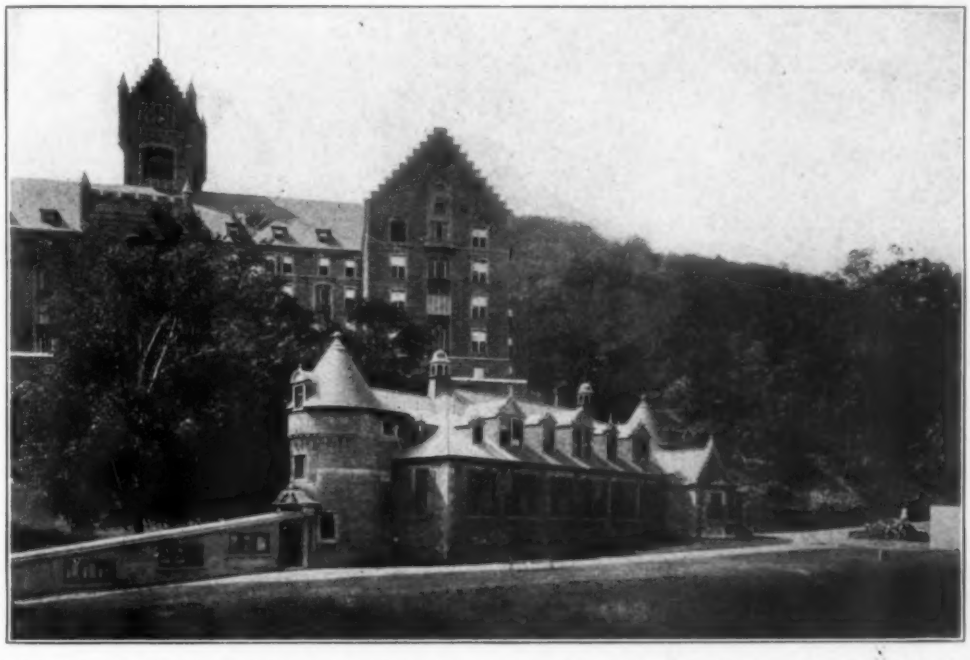
The division is as follows:

1 office.
3 private rooms (1 patient per room).
4 public rooms (2 patients per room).
1 kitchen.
1 dispensary and instruction room.
2 bath rooms.
1 scale room.
1 linen room.
1 laboratory.
1 stock room.

The kitchen is twice the size of the bedrooms. The laboratory extends off to one side from the end of the ward, opening into the main corridor. Across from it is the stock room. The dispensary is the size of a bedroom and in addition to its use as an outdoor diabetic clinic, it is employed four mornings each week for instruction.

The personnel working on the service consists of: one doctor, full time, in charge of the service; one doctor half time, in charge of diabetic instruction; one resident house officer, full time; two girl technicians; and one laboratory orderly.

The day nursing staff consists of one head nurse and three nurses in training. On the night staff are one nurse in training and a ward maid.



The metabolism service at Royal Victoria Hospital is housed in the small ward in the foreground, formerly used for isolation purposes. It is connected to the hospital by a short covered corridor.

The total personnel consists of twelve workers, all except one being full time. This makes more than one per patient, the maximum number of patients that can be accommodated being eleven.

The equipment installed outside of the regular hospital equipment is as follows:

Kitchen.
2 Chatillon food scales No. 126½, 500 grams.
1 steamer for vegetables.
1 Torsion balance.
Individual dishes.
Granite cc. measuring cups.

Ward.
1 Scale, (height and weight.)
1 typewriter.
1 telephone.
1 ophthalmoscope.
1 blackboard (dispensary)

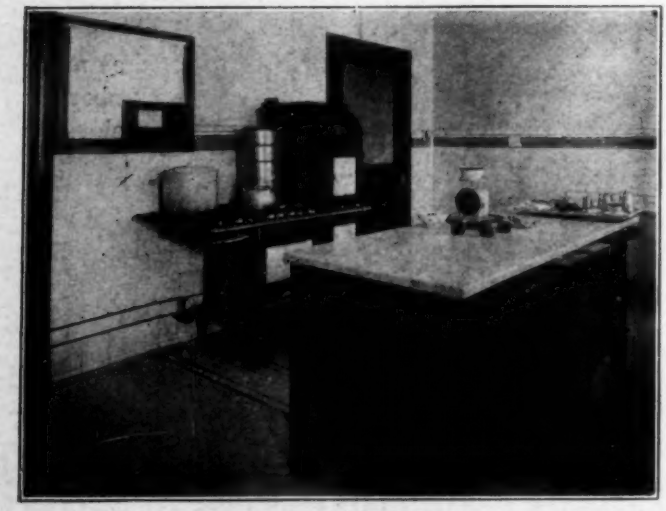
Two views of the laboratory (left and right) and a corner of the dispensary and room for instruction (center).

Laboratory.
1 water still.
1 electric hot air oven.
1 Kjeldahl digesting stand.
1 Kjeldahl distilling stand.
1 steam water bath.
1 set of six electric plates.
1 ice box.
1 autoclave.
1 centrifuge.
1 barometer.
1 microscope.
2 Dubocq colorimeters.
1 fine balance.
1 balance.
2 vacuum pumps.
2 Van Slyke CO_2 apparatus.
Usual glassware, porcelain ware, stands, tripods, etc.

Basal Metabolism.
2 sets metabolism apparatus.
1 Tisot gasometer.
2 gas analysis apparatus.
1 barometer.

Type of Work Undertaken.

To date, the main function of the metabolism service has been to handle all cases of diabetes mellitus admitted to the hospital. In addition extensive studies have been made on a large series of nephritic patients, and at times other problems have been investigated, such as the fasting treatment of epilepsy and special dietetic treatment in various types of hyperthyroidism. Further, an interesting series of obesity cases have been handled and chemical problems in many isolated diseases have been studied. The laboratory in addition to handling all the work from its own ward does all the blood chemical determinations for the other wards of the hospital, both private and public.



The metabolism service kitchen.

The respiration laboratory completes all the basal metabolism determinations for the whole hospital, the thyroid work being done in close combination with a thyroid group which has been functioning for the past year.

The metabolism service uses several forms which are peculiar to its department, being as follows:

On ward:
Large laboratory record sheet.
Daily diet form.
Kitchen sheet.
Food value sheets (for instructions).

In laboratory.
Daily urinalysis sheet.
Nephritic test meal report.
Urea and chloride excretion report.

In respiration laboratory.
Test sheets (2).
Basal metabolism report.

In Dispensary.
Case record.
Weekly report sheet. (Entered upon main record and then destroyed).

Instruction of Patients Emphasized

A special effort is made with all diabetic patients to teach them so that upon their discharge they are able to figure diets upon ordered food values, examine their own urine for sugar and the acetone bodies, and prepare weighed diets. Also some knowledge of their disease is given to them so that they will appreciate the importance of living upon a weighed diet. In our experience diabetic patients do well largely in proportion to the thoroughness of their education. Upon discharge the hospital provides them with the following equipment for which they pay.

1 Chatillon food scale No. 126½, 500 grams.
1 granite cc., measuring cup.
6 test tubes.
Fehlings solution.
5 per cent. ferric chloride solution.

The organization as previously outlined has been found to work very satisfactorily. Our staff is busy all of the time and will have to be enlarged if the department expands. The main fault in the floor space is that the laboratory is not large enough for the work undertaken.

CHANGING CONDITIONS IN THE HOSPITALS OF GERMANY AND AUSTRIA

By PROF. J. GROBER, M.D., University of Jena, Germany.

THE present status of hospital work in Germany is the result of conditions rising out of the war. The main determining influences are the condition of state finances, the fierce struggle for existence on the part of all classes of society, and the revolutionary changes in the social stratification of the people. The changes that have occurred have, indeed, been exceedingly marked, and only the future can decide the question of whether or not real progress has been made. To the observer in the present, at least, the indications of progress are slight.

For various reasons the conditions existing in Germany today are replete with interest for other nations. Before the war the hospitals of Germany, in the opinion of every one, were in most excellent condition. It is therefore a matter of great interest to learn how the circumstances of war and its consequences have influenced such a highly organized institutional system. On the other hand, many other countries today are suffering under similar, if not equally difficult, financial and economic conditions, and also are obliged to practice much the same economy in all directions, as we Germans, cut off from the whole world and from sources of food supply and raw materials, have been compelled to practice since the beginning of the war.

Can Learn Economics from Germany

A number of nations have found it advisable to send their representatives to Germany to study German methods of economical hospital management, and I am convinced that their sojourn in our midst was not without profit. Conditions growing out of the conduct of the war itself brought about many changes in the management of German hospitals, from which many new experiences were derived. The whole country resembled a beleaguered fortress. There was an almost unprecedented lack of raw materials, foodstuffs and man power. As time went on, our isolation from the rest of the world became more and more complete. Naturally, the army in the field needed most of the available supply of food and raw material. The home population was obliged to go hungry, as it did not wish to leave its fighters in the lurch. The food blockade established by the enemy forced Germany to deprive even its sick of the needed rations. The number of those who, on this account, perished or were injured in health will, of course, never be ascertained, but the figure would run high. They, too, are to be regarded as the victims of the hostile forces just as much as those who stood in the battle line.

During the war, the number of patients being cared for in Germany was very much increased, owing to the fact that many soldiers, wounded or sick from field service were sent back home. For this reason, it became necessary to transform into hospitals, buildings intended for other purposes. The same thing occurred in the occupied territory. Under these conditions, many physicians and hospital officials learned how, under difficult circumstances, hospitals can be constructed from buildings that were supposed to serve an entirely different purpose.

Schools Transformed Into Hospitals

School buildings were found to be especially well adapted for transformation into hospitals, as the classrooms were usually located on either side of corridors and were well lighted. The greatest difficulty about using schools for this purpose was the installation of water, steam, gas and electricity. Provision had also to be made for the preparation and serving of meals. It was seldom that schools were found to be equipped with these things. It was our experience that, while it was possible to utilize school rooms for kitchens and laundries, disinfection and operating rooms, it was distinctly better to erect new detached barracks for these purposes. Besides schools, we learned to use for hospital purposes court houses, administration buildings, city halls and cloisters. The perplexities and inconveniences were much the same in each case as those found in the schools. Draining, ventilation and toilet facilities

were usually very inadequate and necessitated a complicated organization, which was often very difficult to establish.

During the war, the supplying of food for patients in the hospitals at home was an especially serious problem. From the quantitative side, the greatest possible number of calories that it was possible to obtain was still inadequate, while genuine food of good quality was seldom to be had. From the standpoint of the special needs of hospital diet, it was particularly unfortunate that there was a grievous lack of meat, fat, milk, eggs, fresh vegetables and carbohydrate-containing foods, such as farina, hulled barley and noodles. It was only with the greatest difficulty that sugar could be procured. There were very few substitutes, and it may be said that it was due more to the enthusiasm of the patients, born of a lofty national pride, and their willingness to go hungry for the sake of victory that it was possible to sustain them at all in the hospitals; certain slight advances that were made in the methods of feeding patients played, by comparison, a very insignificant part. From the scientific standpoint of nutrition in general—for we are purposely avoiding every other consideration—it is extremely interesting to observe what a whole nation was able to endure and accomplish, during a period of four years, with its sick and its well, in spite of the undernutrition brought about by the food blockade imposed by the enemy; in fact, we might perhaps better speak of a famine condition.

The many physicians who, during the war, served in hospitals, both military and civil, were able to accommodate themselves to the new tasks that the war imposed, and it may doubtless be said that such service has contributed—since the war—to the general interest in hospital work and management.

Austrian Hospitals Suffer More

The condition of the hospitals in Austria during the war was not essentially different from that of the hospitals of Germany, as just described. However, the difficulties, owing to the fact that the people were not so well educated and their hospitals less developed than in Germany, were greater. Particularly during the last two years of the war, Austria, as well as Bulgaria and Turkey, experienced an exceedingly painful lack of medicines and bandages material.

The ascending curve that marked the splendid progress of German hospitals during the four decades preceding the war was suddenly broken by the events and sequels of the great struggle. During the war, very few new hospital buildings were erected in either Germany or Austria. To be sure, building activities in this field cannot be said to have ever ceased entirely. Even during the war and within sound of the enemy's cannon, a large modern fortress hospital was erected and equipped in the fortress of Metz, at that time still a part of German territory. This hospital came into use before the war closed. There also were a few other government and municipal hospitals completed. After the war, building activity was still further reduced. To be sure in certain university towns, institutions that had been planned before the war or through the hygienic needs of the time were necessary for clinical purposes were erected; for instance, the Medizinische Klinik in Heidelberg, which was completed in 1921, and the Clinic for Skin and Venereal Diseases in Jena, the building of which was postponed and almost given up on account of the ever-increasing cost of labor and material. In the main, building operations in Germany and Austria were confined to the modification of old buildings and the erection of small additions for special purposes.

Find Castles Make Poor Hospitals

Immediately after the revolution, in many parts of Germany with a purely socialistic government, the castles that had been wrested from the nobles were selected to serve as hospitals and homes for convalescents. But the experiences of the war, to which I referred above, were repeated here with a vengeance, and the same conclusion was reached: It is impossible to make out of an old castle, without completely rebuilding it and without the expenditure of large sums of money, a hygienically useful institution for the care and treatment of patients. On account of lack of means to make the necessary changes, old castles proved to be ill-adapted for infirmaries or recreation resorts for children suffering from mild but prolonged affections. Wherever this has been tried, it has soon been given up. The result of the various trials can be expressed by the conclusion that it is much more feasible and cheaper to erect a new, simple structure for the purpose required than it is to try to remodel old buildings so that they will prove satisfactory. We had the same experience with the castles of princes in the occupied area.

As especially characteristic of the present conditions, I may refer to the situation in the city of L———, which is a popular bath resort. For a number of years the city had been collecting funds with which to erect an especially fine municipal hospital. Excellent plans had been drawn up and approved by the three most eminent hospital architects of Germany. During the war, it was decided to postpone definite action, for the time

being. After the close of the war, the continued depreciated condition of German money made it necessary to abandon the plan, and instead, an attempt was made to put the old municipal hospital, which for many years had been found inadequate for the purpose, into a somewhat usable condition by making certain modifications and additions and supplying the most needed equipment. A number of private residences in the vicinity were also purchased in order to secure more floor space. Many German cities were in the same position and are still. In Austria things are very much worse, for during the past two years even the necessary repairs on buildings have not been made, and the result is that many hospitals begin to look like ruins.

War Stopped Research and Progress

Through force of necessity we are compelled in Germany to practice the most rigid economy in all directions, including the field of hygiene, which results to the damage of public health. Consequently, the new buildings, together with the modifications in and additions to the old buildings, from the purely architectural standpoint have been reduced to the utmost simplicity, and it will be noted that many of the features of modern hospital construction, which, before the war, were regarded as imperative are conspicuously absent. The problem of nonconduction of sound, which, during the last few years before the war, was the subject of earnest study and investigation, and which, in the modern hospital construction before 1914, seemed almost solved, we have been obliged to lay on the shelf; nor are we longer able to install central warm water heating systems provided with electric regulatory mechanism, by means of which the air temperature of the sick rooms can be regulated. In fact, I know of some recent hospital buildings in which it has been necessary to return to ordinary stove heating.

Before the war, we were beginning to regard certain luxurious hospital fittings and equipment as a matter of course, so that now it seems like a big step backward when, for instance, the walls, instead of being covered with white glazed tile are merely whitewashed; when double windows have to be dispensed with; when, in place of fireproof stone staircases and hardwood floors, we find ordinary wooden staircases and common pine floors in the sick rooms, for linoleum and similar floor coverings have scarcely been thought of for some time.

Still more pronounced than the falling off in hospital construction proper has been the downward trend in respect to apparatus, machines and general equipment. I have already mentioned the difficulties in regard to heating. It is not only that the purchase and installation of a central heating system (I am not speaking of a warm water heating system) are beyond the means of the hospitals, but it is also impossible to procure the coal necessary to operate such systems. It also is very regrettable that the newer ventilation systems cannot be installed. Before the war, as the result of the rapid progress in hygienic and industrial technique, we had succeeded in inventing very satisfactory ventilation systems for hospitals. The advocates of mechanical ventilation had to face considerable opposition, but the technicians were able to show that it is possible, with a very slight expenditure of human energy and time, to carry out mechanical ventilation even in buildings in which bad odors are frequent and to supply them with fresh heated air (or cooled air, as the case may be) in a perfectly hygienic manner. But today such ventilation systems are out of the question. Not only the initial cost of the ventilators but also the operating expenses are beyond our means at present. We have therefore been compelled to return to the old method of ventilating through doors and windows. The same conditions obtain as regards other technical equipment; in the kitchens and the laundries, in the storerooms and the disinfection plant; in this latter place too we have been obliged to give up what, before the war, we accepted as a matter of course, knowing that it was no more than was needed for the health and prompt recovery of our patients. The first cost and the operating expense of power-driven kitchen equipment place it beyond our reach at present. In spite of the high cost of labor, it is easier to get the hospital laundry washed by hand than it is to buy laundry machines and operate them.

Since, owing to present conditions, the erection of new buildings and the procuring of new equipment are out of the question, the attention of all persons interested in hospital work has been directed almost exclusively toward hospital management. That is partly due to the fact that the rich experience acquired during the war in hospital work demands practical application, and is partly because the present heavy operating expenses encourage retrenchment and economy wherever possible.

Food Prices in Many Cases Prohibitive

Foodstuffs in Germany have reached unheard-of prices. Very few persons can count with any certainty on having meat at their meals. Many are suffering from the manifestations of qualitative and quantitative undernutrition. A large number actually go hungry. Owing to the pe-

culiar conditions that exist, the distress weighs most heavily on the more cultured classes and persons of more advanced age. When the *rentier*, though in good health, feels compelled for financial reasons to reduce his calory intake, he voluntarily or involuntarily decreases the amount of calories utilized. When it is a question of supplying a proper diet for patients, it is more or less impossible to reduce the calory utilization. If a patient is endeavoring to recover from an infectious disease with loss of body tissue due to intoxication, we cannot expect to restore him to his normal condition unless we can supply him with adequate food. Diseases of the digestive tract or of the blood, as well as conditions characterized by general weakness, not to speak of those pathologic conditions in which the treatment is purely dietetic, require, from both the quantitative and qualitative side, a carefully selected diet. To procure the food required is, at the present time, a very difficult matter, because the prices are almost prohibitive for ordinary hospital management. Nevertheless, if we cannot secure just what we need, we endeavor to procure adequate substitutes.

Food Substitutes Widely Used

The exigencies of the present situation have made surrogates a special subject of study. We had made heretofore some progress in such study, but we have now gone much more deeply into the subject. However, from the hygienic standpoint, many of the substitutes are not entirely free from objections. Whereas formerly scarcely any objections could be raised to the use of good margarin in the hospital kitchen in place of butter, at present many bad and inferior grades are found on the market which it does not seem advisable to use. The same is true of many brands of canned goods which, high priced and of poor quality, are brought in from foreign countries and have caused much damage. The general scarcity of foodstuffs forces even the hospital kitchens to use inferior qualities of food that would formerly have been rejected. In the selection of a diet more consideration is given to the fact that it is filling and produces a certain sense of satiety rather than to the fact that it contains the requisite number of calories in an easily digestible form.

Milk is scarce because the Treaty of Versailles required us to give up a large number of milch cows; also because foreign stock foods are lacking. Eggs, meat and wheat flour have reached such prices that the income of the hospitals is no longer adequate to purchase them. Before the war, we were well on the way toward making a special discipline of the dietetic treatment of diseases. In all large hospitals metabolism-testing laboratories and special diet kitchens were being established in aid of this discipline. Today such things can no longer be thought of.

Extreme Economy in Use of Medicines

In procuring of medicines for hospitals and of chemicals for laboratories similar financial difficulties are encountered. We are compelled to limit ourselves to a minimum in the use of medicines, and at times it is doubtless true that economy is carried to such extremes as to work an injury to the patients. It may well be admitted that, as a consequence of the achievements of the German chemical industry before the war, a certain overproduction and polypragmasy in the prescribing of drugs had taken place and that we might easily get along with fewer medicines. At present many patients are unable to pay for the medicines that are prescribed for them in hospitals as absolutely necessary, for in almost all hospitals it has become the practice to make a definite charge for board and room and an extra charge for all medicines and any special service. Medicines and other special needs of the patient are furnished for the most part at cost or at a slight advance above cost. If this plan is kept up, the clinical testing of the newer remedies is bound to suffer. We cannot complain of a dearth of new remedies being offered us, for the chemical and pharmaceutic industry is busy and is in a position to furnish funds for trials with its new remedies. Many articles are being written on new remedies, for the manufacturers place them at the disposal of certain physicians who express a willingness to try them and to publish their results. But the general testing and the criticism of clinicians are lacking, for, on account of the high cost of the remedies, very few are in a position to test them independently. It is to be feared that if this condition continues for any great length of time, the progress of pharmacology and of pharmaceutic and chemical science and production will be bound to suffer. To be sure, we can if necessary get along with comparatively few medicines, but if we do we miss the opportunity of improving our knowledge.

The high cost of medicines has brought it about that more attention than formerly is being paid to physiotherapy. Some of its modes of application are very simple and can be carried out at very slight expense. Many hospitals were already equipped with extensive apparatus for this purpose, which in the past had been used very little.

Since in this case the cost of installation has already been met and the equipment already may have paid for itself, the essential thing in connec-

tion with its use is to reduce the cost of operation to as low a figure as possible and to provide for repairs and new parts. For these reasons, almost everywhere a pronounced emphasis is being placed on physiotherapy. Owing to the continual increase in the cost of motor power and material, together with the sharp advances in the wage scale, the day is presumably not far distant when, in spite of everything, even this method of treatment will be beyond the means of most patients. That will be especially true if the use of complicated apparatus is insisted upon, the initial cost of which, together with the cost of repairs, necessitates the expenditure of fabulous sums. The simplest forms of physiotherapy, namely hydrotherapy and thermotherapy, will be retained the longest, not only for the individual patient but also for the inmates of the hospitals.

Social Revolution Affects Employment

Then there are the difficulties that arise in connection with the personnel. These difficulties are traceable to three distinct causes: the peculiar shifting process that has been going on the past few years among various classes of society; the enormous increase in wages; and the introduction of the eight-hour system of labor. The shifting of the social classes has proceeded so far that persons who formerly would not have thought of such a thing apply for menial positions in the hospitals as a means of earning a living. On the other hand, it is not uncommon to find persons serving in the higher capacities; for instance, as nurses, who are not fitted socially for the work they are performing.

The increase in the wages that must be paid the personnel of the hospitals has kept pace with the depreciation of the mark. The lower the nature of the employment in the hospital, the greater has been the increase, in general, in the wage scale. Employes of most of the hospitals in Germany and Austria are members of trade unions and are supporters of the social democratic party. It is to be noted that these organizations make a special endeavor to establish their own courses of instruction, in which their members may be trained for their line of work, and, after they have given their members the special training, they use their utmost efforts to prevent persons who have not received such training from serving in the lower positions of the hospital service, as waiters and waitresses, for example. On the other hand, there arises the danger that the nurses may come to be regarded with less respect and may finally be replaced by waiters and waitresses who have had less training. I would regard such an eventuality as a great loss to the German hospital system, in which the peculiar and almost unassailable position of the nurse has played a characteristic and prominent part.

Eight-hour Day Works Hardship

The third difficulty is the strict enforcement of the eight-hour day. As the result of the introduction of this system, we have been compelled to establish three shifts in the ordinary personnel, as permission to deduct from the total work day hours the hours of "readiness to serve" would not be accorded us. That the quality of the nursing and of the medical service necessarily suffers as the result of this three-fold shift in the personnel during the twenty-four hour period goes without saying.

Of late, the nurses are not to the same extent as formerly members of certain religious organizations. Organizations of nurses have sprung up that are actuated by purely utilitarian motives and are not affiliated in any way with any religious denomination. It must be admitted in general that the wages of the nurses so affiliated were small. The religious society derived a peculiar advantage from the labor output of its members by playing on the altruism of the better natured among them. To be sure, it is frequently the case that religious enthusiasm takes the place of true altruism, but the religious denominations have no compunctions about utilizing this motive as well. For this reason, it sometimes may be noted that the organizations of nurses that are not affiliated with any religious denomination demand a strict application of the eight-hour day, whereas the organizations that are so affiliated seemingly know nothing about the eight-hour system.

Professors' Salaries but 1/120 of Nurses'

With further reference to the personnel, it is noticeable that, as a result of the revolution, a spirit of unwillingness to adapt oneself to the needs of an organized compulsory service is everywhere manifest. Even among the employes who perform the more menial tasks in the hospitals there are so-called labor counselors, who frequently concern themselves with affairs that are entirely beyond their intellectual ken and their economic scope. The unusually high wages that such employes receive at present confirm in them the conviction that their services are indispensable and thus bring ever greater damage to the internal workings of the hospital. To furnish one illustration: there are today professors in the medical schools of Germany who receive as their annual salary only one-tenth the amount that a nurse receives per month. *Sapienti sat.*

Under such conditions, it is only natural that

at times hospital management palls on those who have to bear the responsibility. Only stern necessity forces us to continue to bear the burden. Unfortunately, the conditions as just described exert a depressing influence also on the intellectual life of the nation. To be sure, there is a proverb which says, *Plenus venter non studet libenter,* but an empty stomach is still less fond of study. If we consider, in addition, our worry about the future of our country, it will be seen that the inhibitory tendencies are doubly great. Our worries are vastly increased by the insufficient meat rations and the inadequate calory intake. If conditions do not improve in this respect, a falling off in the scientific output of German physicians will soon be noticeable.

Rates Advance Every Two or Three Weeks

The difficulties connected with office management are much the same as those mentioned in connection with the personnel performing the more menial duties. The time and energy of the medical director and also of the lay superintendent are often taken up almost solely with negotiations in regard to increases of salary, instead of being applied, as they should be, to the effecting of improvements in administration and management. It goes without saying that an endeavor has been made to practice economy in office management the same as in other directions, but, owing to the fact that the employes are members of organized unions, it is difficult to keep the salaries down, and it is equally difficult to discharge any of them. The reason is the same in both cases. Another burden is the enormous advance in the prices of all power-producing substances, such as coal, benzine, oil and gasoline, without which the modern hospital cannot operate. The constant upward trend of salaries necessitates a continual readjustment of the sources of income. Therefore, during the last few months, almost every two or three weeks, an advance in the schedule of prices that patients are required to pay has been published. The fact that patients can never form an accurate idea as to how much their stay in the hospital is going to cost them, together with the seemingly high tariff schedule as viewed in the absolute, reduces the number of admissions quite materially. The consequence is that most hospitals have many more unoccupied beds than formerly.

If it were not for the fact that many who claim sick benefits are quartered in the hospitals until their claims can be allowed, the number of patients would be even smaller than it is. It also is to the interest of the general practitioners to treat their patients themselves and not send them to the hospital. Owing to these conditions, there is then a very considerable lack of patients, which makes itself felt especially in the university institutes.

In regard to problems of academic instruction, the prospects are particularly bad, for it is self-evident that, when the number of patients is reduced, the opportunities for proper instruction in the practice of medicine are much diminished. Owing to present conditions, means for the purely scientific work of the hospitals, which no hospital can afford to neglect if it wishes to keep abreast of the times, are not forthcoming, and it is not impossible that the hospitals may, on this account, lapse into a decadent condition from which it will be difficult to recover. We have at present in Germany no adequate state funds that are available for the purchase of a minimum supply of material such as is needed for scientific experimental work. What the blockade and the war have not devoured is now being lost through the depreciation of the mark, and as things stand today, we see no prospect of improvement, nor do we see any way in which it might be possible for us to help ourselves.

Retrograde Movement is Probable

However, we have confidence to believe that there is enough sense of justice in the world to refuse to permit an industrious and capable nation, such as the German people was, and one that has accomplished so much in the field of medicine and hospital development, to perish from the earth.

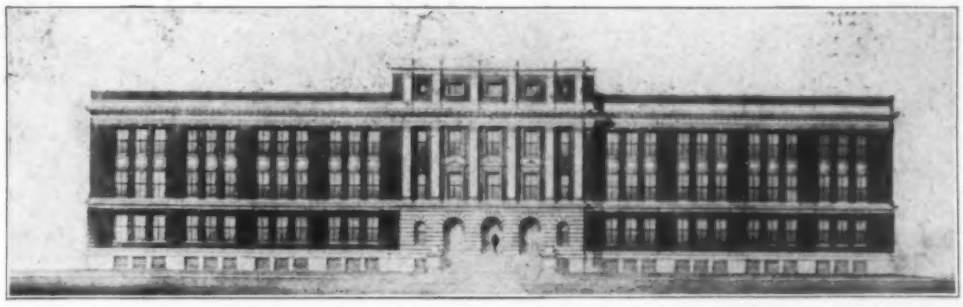
I admit that it is a gloomy picture which I have been compelled to unroll. Under present conditions, no progress in hospital administration or management can be expected; in fact, a retrograde movement is more likely. We are making an honest endeavor to learn all there is to be learned from the misfortunes and the distress that have come upon us. We are trying to see to it that the hospitals of the country shall contribute all that they can toward the health and welfare of our people. In many places, efforts are being made to make some progress, even under the present adverse conditions, and to replace the old equipment with something better and, at the same time, cheaper. The reprint of the compendium, "Das deutsche Krankenhaus," and the various hospital journals published in Germany are evidence of this fact. If we are successful, we shall surely be entitled to raise aloft as our motto: *per aspera ad astra.*

Progress, man's distinctive mark alone,
Not God's, and not the beasts'; God is, they are;
Man partly is, and wholly hopes to be.
—Browning.

THE HOSPITAL A NUCLEUS FOR A MEDICAL CENTER

By LT. COL. PAUL C. HUTTON, U. S. M. C., Chief of Hospital Division, Office of the Surgeon General, U. S. A., Washington, D. C.

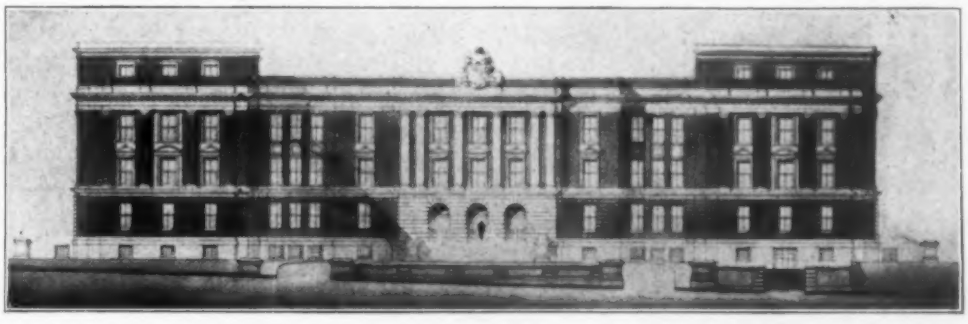
WHEN Congress appropriated $500,000 to build a new Army Medical School building at Walter Reed General Hospital, this act constituted the first step in the creation of a great medical center and the utilization of a large hospital as its nucleus. The plans in detail for this medical center have been worked out to completion and the surgeon general of the army expects to secure additional appropriations from time to time with which to add the various and multiple accessories which are essential to this unprecedented project.



The Army Medical School building now under construction. A twin building later will be erected, and the two connected by a structure which will constitute the first complete unit of the medical center.

The Walter Reed General Hospital first began to function in May, 1909, and at that time had a capacity of 89 beds. On January 1, 1917, this capacity had increased to 164 beds. When war was declared, the War Department began to expand this hospital and by June, 1918, a capacity of 1,235 beds was reported. By October of 1918, this capacity had increased to 2,645 beds. This rapid expansion was accomplished by types of construction ranging from temporary frame to semi-permanent tile, the war conditions being so urgent that the time factor prohibited permanent construction. Thus we see the transformation of a relatively small hospital to one of considerable magnitude with a capacity of 2,645 beds in a comparatively short period, and at the same time a metamorphosis which took on all the characteristics of a war-time hospital with extension of its facilities from the routine of peace-time operation to the highly technical specialties required by war conditions. The magnitude of the service rendered by this hospital may be partly understood when one reviews the records on file in the Office of the Surgeon General of the Army. During the calendar years 1918 and 1919, there were treated at this hospital 25,359 cases.

When the war came to an end, the War Department was prepared to contract this large hospital to a point compatible with the requirements of the authorized regular army, but the Veterans' Bureau desired to avail itself of its facilities and it, therefore, became necessary to maintain a capacity far in excess of strictly military needs. At present the Walter Reed General Hospital has a normal capacity of 1,500 beds with facilities for emergency expansion to 2,000 beds, and if one may judge from present indications, it appears unlikely that its capacity will fall below 1,000 for an indefinite period. We may, therefore, anticipate that the hospital nucleus of the great medical center will not be less than 1,000 beds. On the following page is an aeroplane view of Walter

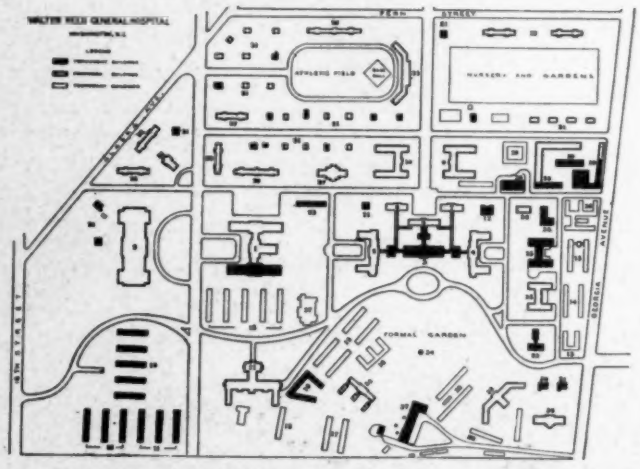


End view of the building shown above and of its twin, with the connecting structure. The completed building will be in the form of the letter "H"

Reed General Hospital as it is today.

The Army Medical School building, now in course of erection at Walter Reed General Hospital, represents two-fifths of the amount which will ultimately be required to complete the structure. The first photograph represents the building now three-fourths completed and also its twin for which the next appropriation is to be asked. When these two structures parallel each other, an additional appropriation of $250,000 will be necessary to connect the two, as illustrated. The acquisition of this completed project will constitute the first completed new component of the medical center, after which will follow the army medical library and later the army medical museum. The grouping of all of these allied activities will follow the outline shown below.

Airplane view of the Walter Reed General Hospital reservation. The three wards in the left center outlined by the dotted lines have been demolished to provide space for the Army Medical School building.



Block plan map of the army medical center as planned, including Walter Reed General Hospital.

1. Army Medical School.
2. Army Medical Museum and Library.
3. Administration building of hospital.
4. 224 bed ward addition.
5. 224 bed ward addition.
6. Mess hall addition.
7. Laboratory.
8. Library.
9. Tuberculosis wards.
10. Isolation wards.
11. Psychiatric ward.
12. Maternity ward.
13. Gate house and receiving building.
14. Wards.
15. Wards.
16. Ward for female patients.
17. Venereal wards.
18. Shops for occupational training
19. Eye, ear, nose and throat clinic.
20. Commanding officer's quarters.
21. Officers' quarters.
22. Apartment for officers.
23. Nurses' quarters.
24. Non-commissioned officers' quarters.
25. Barracks for medical detachment.
26. School for nurses.
27. Building for American Red Cross.
28. Warehouses.
29. Stables.
30. Garage.
31. Chapel.
32. Greenhouse.
33. Grand stand and gymnasium.
34. Band stand.
35. Guard house.
36. Post exchange.
37. Power plant.

From the foregoing one may quickly discern that a physician on duty at Walter Reed General Hospital or student officers undergoing a post-graduate course of instruction at the Army Medical School will have surrounding them professional opportunities which have rarely, if ever, been equaled. The student officers will have the benefit, not only of their own highly trained teaching staff, but of the hospital clinical staff, representing all the specialties on duty at the hospital. At the same time the wealth of pathological material available in the Army Medical Museum and the unsurpassed collection of medical volumes in the Army Medical Library will provide facilities which have hitherto never been enjoyed by members of the medical profession. The creation, then, of such a medical center with its hospital nucleus must lead ultimately to a medical supremacy which should place the United States in a position of leadership for the entire medical world.

The accompanying map of Walter Reed General Hospital outlines the various medical activities which will constitute the great medical center, as it will be when completed.

The following hospital men have been appointed as a committee of the American Hospital Association to cooperate with the government in the sale of surplus supplies left over from the World War: Dr. Winford H. Smith, director, Johns Hopkins Hospital, Baltimore, chairman; Dr. Thomas Howell, superintendent, New York Hospital, New York City; Dr. Joseph B. Howland, superintendent, Peter Bent Brigham Hospital, Boston.

HOSPITAL DEVELOPMENT IN HOLLAND

By J. L. C. WORTMAN, M.D., Superintendent, Tesselschade Hospital, Amsterdam, Holland.

With a great deal of pleasure I will undertake to tell something of hospital progress and its relation to other public health institutions in Holland. The reader of this paper will permit me to go back some years in the history of the hospital field, since the progress of the past year is not important enough to awaken interest.

Increased costs of building and maintenances have prevented the achievement of nearly all our plans for constructing new hospitals. Moreover, hospitals now in existence have had few improvements, especially the voluntary hospitals. Governmental as well as private affairs are at the present moment ruled by economic considerations. The hospitals have not escaped from this tendency. Even the building of a large hospital and medical school at the State University of Leyden, now in course of construction, has been delayed because of economic conditions. In both the other university towns, Utrecht and Groningen, hospital construction took place at an earlier date and under more favorable circumstances.

War Halted Hospital Construction

Holland generally is well provided with hospitals, but they are mostly of an old type, partially renovated and furnished with new equipment for medical treatment and research. Of the three largest towns, Amsterdam, Rotterdam and The Hague, only Amsterdam possesses new hospitals of any importance, namely, the Wilhelmina Municipal Hospital of 1500 beds and the Catholic Hospital of 600 beds. Even they were constructed in the last decade of the past century.

During the European War a new municipal hospital at Amsterdam was planned and approved by the town council, but lack of materials, especially those of a technical nature, prevented the execution of the plans. Instead of erecting a new building, an orphanage was completely reconstructed for hospital use and thus the need for greater hospital accommodation was satisfied. This hospital, called Tesselschade Ziekenhuis, is situated near the entrance to a large town park and is partially intended for advanced tuberculosis patients.

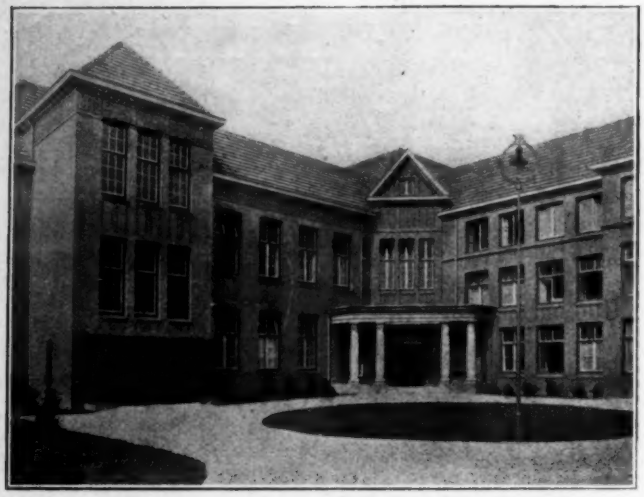
The project for a new medical school and hospital at the Municipal University of Amsterdam, replacing the old institution, the Binnengasthuis, failed because of the war. The same fate met the completely prepared hospital plans for 1,000 and more beds in the cities of The Hague and Rotterdam.

Picturesque Dordrecht Has New Hospital

Although the larger towns failed to enlarge their hospital accommodations, such was not the case at Dordrecht, the picturesque town situated on the Maas River. There the town council was plucky enough to carry out during the war the proposed hospital construction.

Because of this the stranger who visits hospitals in Holland is advised to go by steamer from the Maas station at Rotterdam upstream to Dordrecht, one of the most beautiful scenic trips in Holland. After visiting the municipal hospital of the miscellaneous corridor-pavilion type with accommodations for 200 patients, he can take fortune at the tide to get acquainted with a small private hospital of modern architecture. While the municipal hospital—and this is the rule throughout Holland—is used for the poor and the

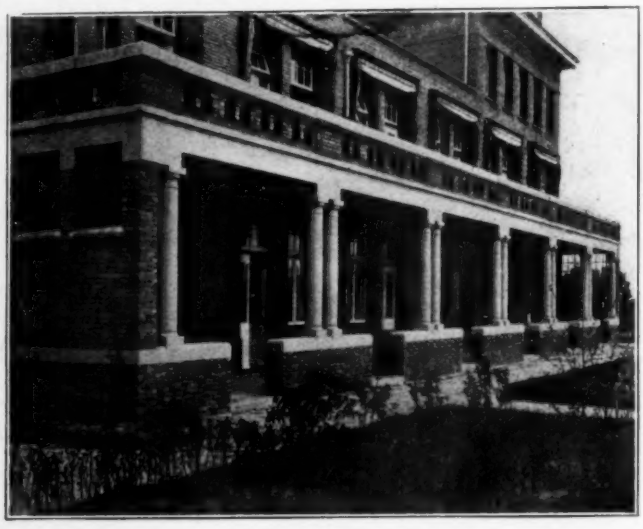
The Catholic Sanatorium, "Dekkerswald," near Nymegen, Holland.



Municipal hospital at Dordrecht which accommodates 200 patients.

lower classes, the private hospital is intended for the upper classes. Only those private hospitals, which are at the same time institutions of a religious character, take care of poor and middle class patients, in addition to the others.

The reader already has gathered from these lines that there are in Holland four universities with medical schools and hospitals. A fifth is partially achieved by the Reformed Protestants, and the Catholics are working for a sixth.



Private hospital at Dordrecht.

In addition to the academic and general hospitals mentioned, I must call to your attention a large number of special hospitals. In nearly every town of any importance, there are hospitals for children, and in the larger cities there are hospitals for diseases of the eye. In the country there are a sufficient number of hospitals for nervous and mental diseases, as well as an ever-increasing number of sanatoriums for tuberculosis. Two sanatoriums, housed in temporary buildings (war barracks), are the more recent products.

The fight against tuberculosis is carried on in an efficient manner, especially at Amsterdam. A central dispensary, in charge of a full-time physician, is charged with the arrangement of all social measures in connection with the patients. He places the patients in sanatoriums or hospitals, according to the seriousness of their sickness. Therefore he is constantly aware of the number of unoccupied beds in the tuberculosis department of the local hospitals and in the sanatoriums of the whole country. As a matter of course many other anti-tuberculosis measures are taken, but I forego the desire of dwelling on them longer and will pass on to hospital organization in Holland.

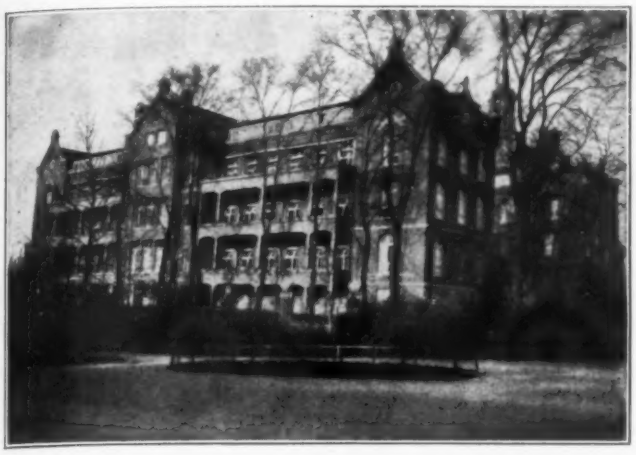
Nearly all hospitals have a medical superintendent and a matron, who is the chief of nursing and housekeeping but subordinate to the former. The superintendent is responsible for the management and the internal regulations of the house. His position in the municipal hospital is comparable to the managing directory of a factory. Even the physicians are subordinate to him, but are independent in regard to treatment of patients. This rule is possible, as all physicians in the municipal hospitals are officials, mainly half-time men. In the smaller and in private hospitals, the superintendent is obliged to treat all third-class patients; in larger institutions his medical duties are less.

An important part of the superintendent's and the matron's duties is the care of the nurses and the nursing school. In every hospital of fifty beds or more, nurses are trained, practically and theoretically. After three years of training, quite on the English and American plan, the pupils are admitted to an examination. If they pass they receive a diploma of trained nurse and many of them leave the hospital for private nursing.

In the municipal hospitals at Amsterdam and Rotterdam, the eight-hour day has been intro-

Clinic buildings for surgery and gynecology at the University of Utrecht.

duced for nurses, as well as for the rest of the staff. Consequently the number of staff members exceeds the number of patients; and the number of nurses amounts to half the number of patients. The duty of the nurses is limited to the patient and his immediate surroundings. Housekeeping



Tesselschade Hospital at Amsterdam faces the town park

of the ward is done by hand maids and charwomen. Finally a great many men and women are busy all day cleaning the house, for it is a Dutch hobby, you know, to scrub and polish until the last stone is glittering.

In contrast to American conditions, the outdoor department of hospitals in Holland has not much importance. Most of them have policlinics, which however are visited by only a limited number of patients, because a well-ordered system of house physicians and specialists are attached to sick funds, and they assist the sick of all circumstances, outside the hospitals.

A social service department is not essential because the hospitals do not offer any outside aid. This task is given over to other agencies in the large towns, namely, the municipal and private medical services. Particularly the municipal medical services are important public health institutions and are intended to take care of medical hygienic measures of all sorts by means of school hygiene, medical attendance and nursing to the poor, the care of sucklings, accidents on the street, transportation of sick to hospitals, etc.

City Medical Services Too Powerful

More and more the municipal medical services are charged with the work of placing and controlling patients recommended by house physicians for hospitalization. In this way these services are vested with too large an authority and they imperil the full use of our hospitals. Indeed this system has a tendency to reduce hospital provision. The peril of this tendency is that it does not provide for the hospitalization of operative cases, nor of infectious cases, including the venereal and tuberculous, but provides only for general medical cases. Recommendation for hospital attendance for general medical cases has partly a social and partly a scientific side, and is generally not well founded. There are many acute cases which require prudence in rendering a decision in regard to hospital attendance because of the danger of transportation of the patient. Thus we have had sad experiences in cases of pneumonia, serious hemoptysis and hematemesis, and also with patients on the verge of collapse or suffering from violent colics, brachycardial attacks, etc. Therefore we must balance the "pros" of hospital attendance against the "contras" of perils in transportation and the emotions of leaving home.

From a scientific and economic standpoint, beginning cases of serious disease should have the advantage of hospital treatment. The medical clinic occupies a prominent place in the recognition of incipient cases and also in the treatment of many chronic cases in order to restore physical balance. The restoration of power to work constitutes the economic value of the hospital; in contrast to this capacity, hospital treatment of the incurably sick is of a purely philanthropic nature.

Consequently, the question of hospitalization of general medical cases has many sides and needs immediate study. From the standpoint of hospital efficiency alone it is important enough for close examination. Anything that will add to efficiency must draw our attention, for that is the way to increase the value of our hospitals and to consolidate their dual function as social and economic institutes.

HELP TO PAY OFF INDEBTEDNESS

Citizens of Bangor, Maine, and others interested in hospital work are assisting in paying off the indebtedness of the Eastern Maine General Hospital at Bangor and in providing funds for the construction of a coal pocket, power plant and laundry. The amount needed for these various projects is $250,000 much of which already has been raised. With the proposed improvements and the cancellation of interest charges, the hospital hopes to effect a saving of from $12,000 to $15,000 annually.

Among the donors were Col. Simon J. Murphy of Whittier, Cal., who recently provided funds for the erection of the Murphy Memorial Hospital in that town, and "a friend," said to be a stranger in the city who sent a check for $75,000. Col. Murphy's gift was for $10,000; he was a former resident of Bangor. Half of the amount needed had been raised in early December.

He that has never known adversity—is but half acquainted with others, or with himself. Constant success shows us but one side of the world; for as it surrounds us with friends, who tell us only our merits, so it silences those enemies from whom only we can learn our defects.—Cotton.

The MODERN HOSPITAL

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22 East Ontario Street Chicago, Illinois

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THE STATE HOSPITAL

WITH this number THE MODERN HOSPITAL begins a plea for a new interest on the part of the medical and hospital fields and their educational organizations in the state hospital and colony for the mentally afflicted.

Thought has been given this subject for a long time and careful inquiries have been made to learn just what the situation in these institutions is. As Mr. Homer Folks, president of the National Conference on Social Work, aptly says in the article on "Bettering the Service of State Hospitals" on page 105: "Conditions in state hospitals following the war have resulted in general retardation of progress, if not an actual reversion to lower standards." Other students of the situation doubt if, on a general average, the condition of the insane and feeble-minded throughout the United States is better today than it was 100 years ago.

Whether this be true or not, the war has seriously disorganized these institutions and clamped the brake on the progress some states were making. They have not recovered their morale or working organizations and most of those hospitals, which have not actually fallen behind, are only marking time, and giving care little better than that rendered by the custodial institutions of another day.

The success that has attended the movement to elevate the standards of general hospitals throughout the country gives this magazine courage to believe that interest can be stimulated in the plight of the mentally sick and in the means which are available for their care and treatment.

The problem before us, while it is a hospital matter, nevertheless is very much different from that which confronted those who some years ago established minimum standards among general hospitals. The state hospital is isolated; it draws its support from the public treasury; it is subject to continuously changing policies, emanating from sources which have no or very little knowledge of its needs or work; it is enshrouded in the mysteries and superstitions that have always retarded constructive work among the so-called insane; it is hampered by the practice prevailing in almost all states, of considering it fair political spoils to be used to the advantage of the party or faction in power. It is more difficult to center public attention upon the state hospital than upon the local general hospital, which is located in the midst of things and is ever present as a suppliant for the charity and support of the people it serves.

But the state hospital situation may be approached from a different direction. Its delicacy and peculiarities are recognized and THE MODERN HOSPITAL will attempt to treat it with the consid-

eration that these factors impose. The campaign will not be one of exposure or muckraking. There will be no harsh criticism of men or organizations. Whatever is done will be done in the spirit of constructive helpfulness.

The campaign which starts this month will continue through a long period. The aim will be to enlist the cooperation and support of everyone engaged in state hospital administration or medical service. Its first stage will be devoted to a statement of the serious problems that confront every state hospital or colony, a statement of the conditions and situation as they are, with such suggestive, constructive material as may be available. The second stage will include a review of a few of the best hospitals, those most fully rounded out, and of a few others that are excelling in one or more directions. The third stage will include constructive thoughts and ideas from specialists and experts who may show the way to better things. The whole campaign has been designed as a healthy stimulant to all those who are engaged in the medical profession or in the administration of state or general hospitals.

THE MODERN HOSPITAL in this movement has only one purpose: to arouse interest in the institutions which have been erected for the care and treatment of those who are unfortunate through mental disease or deficiency. Better standards in these institutions are possible without the expenditure of more money, and they are demanded of every hospital and state that pretend to hold a place or a name among men as a friend of humanity.

INCOME TAXES

Between now and the fifteenth of March it will be necessary for hospitals, sanatoriums and allied institutions to give consideration to the federal income tax law and make such returns as are required by that law. THE MODERN HOSPITAL has, therefore, asked Mr. Ewing Laporte of Pittsburgh, who was assistant secretary of the treasury under three administrations and who is thoroughly versed in the principles and application of the income tax law, to prepare a statement for its readers. This will be found on page 159 of this issue.

As Mr. Laporte points out, it is important at the outset to distinguish between the liability to pay income tax and the duty to make a report to the government on which taxes may or may not be due. To the latter requirement all hospitals are subject, whether they are private hospitals or sanatoriums operated for profit by individuals, partnerships or corporations; hospitals or sanatoriums operated under charitable foundations and not for profit; or state, county or municipal hospitals or sanatoriums. The information hospitals and sanatoriums are called upon to furnish the government relates principally to the wages and salaries paid employes, and this requirement, let us repeat, applies quite as much to hospitals and sanatoriums operated by states, counties, or municipalities which are exempt as such from filing returns of income and from payment of taxes as it does to other hospitals.

Hospitals and sanatoriums operated by boards of trustees or similar bodies under a charitable foundation, and not for profit, are not subject to the federal income tax law if they meet the tests enumerated by Mr. Laporte. In order to establish their right to exemption, however, they must file an affidavit with the collector of internal revenue for the district in which they are located, showing among other things the character of the organization, the purpose for which it was organized and the sources and disposition of its income.

EDUCATING OUR LAWMAKERS

THE November election brought about a marked change in the personnel of the lawmaking bodies in almost every state. Whether these new representatives of the people are to be a success and enact such laws as will serve to the best advantage the communities from which they come will depend in a large measure on the influence that is brought to bear by their respective constituents. By influence is not meant the persuasion of the professional lobbyist, but that influence brought about by a broad and sympathetic knowledge of the actual needs of the people whom they represent. No man can be said to be representative of any community who does not thoroughly familiarize himself with the needs and responsibilities of local institutions, among them the hospitals.

It is clearly the duty of every superintendent and board of managers of such institutions to seek out their representatives and make known to them their needs. With these wants fixed in their minds, the legislators will approach their new duties not in an aimless sort of way but with a definite purpose of rendering a service where it is needed.

The power of combined effort in influencing legislation has long since passed the experimental stage. It is well known that organized effort can prevent or effect the passage of laws where the influence of an individual can not make itself felt. This alone justifies the existence of state and sectional hospital associations. True, all legislation

must be effected through committee, but it must be remembered that these committees are selected from the body as a whole and if each member is familiar with the needs of his local institutions it will greatly facilitate the passage of many laws needed to protect the hospitals throughout the country.

HOSPITALS SHOULD BE SPRINKLERED

LAVISH outlay in technical equipment and costly appointments for the comfort of the sick and convalescent, with only the most casual thought given to the emergency of fire, unfortunately constitute a condition all too common in hospital management.

Fire is a severe shock to the nervous system of persons in normal health, and its presence among large numbers of sick doubtless has been responsible for more deaths and retarded convalescence than is realized. Rapid and safe evacuation should be the first consideration in hospital planning, yet narrow halls are the rule rather than the exception.

Incipient fires having their origin within the building almost always will be extinguished by automatic sprinklers if they are properly maintained. Since its perfection the automatic sprinkler has conquered, in the early stages, many thousands of fires. The fact that a valve has been known sometimes to leak where sprinklers have been installed in wards is not sufficient reason for neglecting to institute this precaution, although many hospital authorities have given this occasional defect as an excuse for non-installation.

There is no doubt that the average hospital should be protected by sprinklers. They are desirable, as an added safeguard, even in those structures which are believed to be fully fire-resistive. Since the sprinkler system also can function as an auxiliary fire alarm, when so equipped, its value is two-fold: it indicates the location of the fire and instantly sets about quenching the blaze. Not even the shadow of a reason exists for failing to install sprinklers in kitchens, storerooms, laboratories, cellars, and other places of special hazard where patients are not confined.

Speaking of the hospital fire hazard, Robert Adamson, former fire commissioner of New York, once said: "It is peculiar that in an institution established for the highly beneficient purpose of caring for human life, the question of safety to life is disregarded when it is a simple thing so to arrange conditions as in large part to eliminate the possibility of fire. Medical science has made such progress that the fight against disease and subnormal conditions of body and brain are waged more successfully than ever before. Disease has succumbed to science, yet fire continues to kill just the same as ever. What a travesty on trust it is to safeguard lives from the ravages of disease and at the same time expose them to the perils of fire."

Nothing need be added to this clear statement of a fact that is fully as apparent today as on the day it was uttered.

CATALOGUES HAVE PLACE IN REFERENCE LIBRARY

THERE has just come to our desk a loose-leaf catalogue from the manufacturer of one of the most widely known lines of hospital furniture and sterilizing apparatus. This catalogue is printed on an excellent grade of coated paper and is not only replete with attractive half-tone illustrations that give the reader an excellent conception of various pieces of furniture and apparatus, but is also full of informative descriptive matter. The volume is bound in a substantial buckram cover.

This catalogue is one of several recently received by us which go to show that the manufacturers of high grade hospital equipment and supplies are more and more realizing the value of getting away from the old style of catalogue and are publishing catalogues which contain a considerable amount of information that will make the purchaser a more intelligent and discriminating buyer.

The value of these catalogues, however, rests wholly in their availability for use. Superintendents and purchasing agents should therefore maintain an up-to-date reference library of catalogues that come to them from time to time and put them to constant use.

DIRECTORY OF CONVALESCENT HOMES

A directory of convalescent homes in the United States has been published by Sturgis research fund of The Burke Foundation under date of 1923. This is the first attempt to present the scope of this public health activity throughout the country. From this list have been excluded a great number of beds which may be classed as borderline, such as pay homes, certain sanatoriums, fresh-air places, etc.

"The growth in special lines of skilled convalescence (as in heart disease) has been encouraging recently," says Miss Mollie E. Sinclair, R.N., supervisor of the admission department of The Burke Foundation, in a foreword to the directory. "Public health teaching is commencing to include convalescence in its curriculum, and some form of national association covering this much neglected section of health-making is in thought."

We affect to laugh at the folly of those who put faith in nostrums, but are willing to try ourselves whether there is any truth in them.—Hazlitt.

APPLICATION OF INCOME TAX TO HOSPITALS

By EWING LAPORTE, Pittsburgh, Pa.

THE question of application of the income tax to hospitals and sanatoriums groups itself naturally under three heads: first, state, county and municipal hospitals or sanatoriums; second, hospitals or sanatoriums operated under charitable foundations and not for profit; and third, private hospitals or sanatoriums operated for profit by individuals, by partnerships or by corporations. The first group is exempt from tax; the second is exempt under certain conditions; and the third is subject to tax just as is any other business operated for profit.

It is important at the outset to distinguish between the liability to pay income tax and the duty to make a return or report to the government on which tax may, or may not, be due.

All Hospitals Must Make Reports

All three of these groups are subject to certain requirements with respect to filing information returns, and since these requirements apply to all hospitals and sanatoriums alike they may be disposed of first.

Any hospital or sanatorium which made payments to any person or partnership of fixed or determinable income amounting to $1,000 or more during 1922 must make a report of such payments on or before March 15, 1923. Forms for this purpose can be secured from the local collector of internal revenue. The form is No. 1099 and is accompanied by a letter of transmittal on Form 1096, showing the number of returns filed. The street and number where the recipient of the payment lives should be stated if possible. Where no present address is available, the last known post office address should be given. This means that payments to employes, salaries, wages, fees, commission, etc., except for professional services, or other compensation if it exceeds $1,000, must be reported. Such information is required by the bureau in order to check the individual returns of the persons to whom the payments were made. With respect to hospitals and sanatoriums the principal items to be reported are wages and salaries paid employes. Payments for professional services are not required to be reported. If any doubt is entertained as to whether a particular class of services is to be regarded as of a professional character for the purpose of these returns, the safe course is to report the payments for such services and explain their nature on the return.

Must Estimate Board and Lodging

One point affecting these information returns which is somewhat peculiar to hospitals is that the compensation of their employes frequently includes meals, lodging, laundry, etc. The value of these items must be included in computing the amount of the compensation of each employe to be reported. It is taxable income to the employe and the information is therefore required by the government. It is often difficult to determine the value of such items. Any method that is reasonable may be used. Sometimes the employe, if not required to reside on the premises, is offered the choice of a certain rate of pay with board, etc., and a greater amount without these items. In that case their value might be computed at the amount of the increase. Or the cost of boarding the employe or providing any other services to him might be computed or estimated for a representative period such as one month. The bureau's regulations authorize this method of approximation to be used in the case of large establishments in determining whether the individual wages of a large group of employes amount to $1,000 or more, if the burden of exact computation would cause undue hardship.

In addition to this, if specially required and notified by the commissioner of internal revenue, every hospital or sanatorium, organized as a corporation and operated for profit, must render a return on Form 1097 of its payments of dividends or distribution to stockholders for such period as may be specified in the commissioner's notice, stating the name and address of each stockholder, the number and class of shares owned by him, the date and amount of each dividend paid to him, and when the surplus out of which it was paid was accumulated.

Hospitals or sanatoriums operated by states, counties or municipalities are exempt, as such, from filing returns of income and from payment of tax. They are subject, however, to the requirements outlined above as to the filing of information returns.

Charity Hospitals Must File Affidavit

A hospital or sanatorium operated by a board of trustees or similar body, under a charitable foundation and not for profit, is not subject to tax if it meets the following three tests:

1. It must be organized and operated for charitable, scientific, educational, or religious purposes, or for any or all of these purposes;
2. It must be operated exclusively for such purpose or purposes; and
3. No part of its net income must inure to the benefit of any private stockholder or individual.

If an institution meets these tests it is not required to file returns of its income or pay income tax, but in order to establish its right to exemption and thus to be relieved from the duty of paying the tax, the regulations of the internal revenue bureau require that every corporation claiming such exemption shall file an affidavit with the collector of internal revenue for the district in which it is located, showing the character of the organization, the purpose for which it was organized, the sources of its income and the disposition of such income, whether or not any of its income is credited to surplus or may inure to the benefit of any private stockholder or individual, and in general all facts relative to its operation which have any bearing in determining its status as to exemption under the law. To such affidavit should be attached a copy of the charter or articles of incorporation and by-laws of the organization.

Upon receipt of this affidavit and other papers by the collector he will inform the hospital or sanatorium whether or not it is exempt. When an organization has once established its right to exemption, it need not thereafter make return of income or any further showing with respect to its status under the law, unless it changes the character of its organization or operations, or the purpose for which it was originally created. The income tax law has been in effect several years and probably existing institutions have already determined their status as to exemption and need not therefore take any further steps in this connection during 1923. The duty of any such exempted hospital or sanatorium to file information returns as to sums paid by it in excess of $1,000 to individuals is not affected by its exemption from tax.

The third and last group comprises those private hospitals or sanatoriums organized and operated for profit, whether by an individual, a group of individuals in partnership, or by a corporation. Such institutions if incorporated are subject, as any other corporations, to the corporation income tax of 12½ per cent on net income. A credit of $2,000 is allowed domestic corporations, the net income of which is $25,000 or less. The excess profits tax on corporations is, however, no longer in effect. A corporation organized for profit must file a tax return whether it has made any profits or not, but an individual need only file a tax return if his net income is $1,000 or more if single, or $2,000 or more if married, or if his gross income is $5,000 or more whether married or single. This so-called "tax return" in the case of a corporation which has earned no taxable income is in effect an information return.

Special Partnership Returns

Hospitals or sanatoriums owned and operated by two or more physicians, etc., in partnership must make a partnership return on Form 1065. This is an information return, for partnerships as such are not subject to income tax. The return must be made regardless of the amount of net income, and must be sworn to by one of the partners. The return is made for the taxable year of the partnership; that is, for its annual accounting period, fiscal year or calendar year as the case may be, irrespective of whether the individual partner makes his own return on a fiscal or calendar year basis. This partnership return must specify the items of gross income, the deductions allowed, together with various other items of information required by the form. The individual partners will then report on their personal income tax returns, the distributive share of the partnership net income shown on Form 1065, whether actually distributed and received by them or not.

Hospitals or sanatoriums operated for profit by individuals are taxable just as any other business carried on by an individual. The owner is subject to normal tax and surtax on his income from the operation of the institution, which is included in his regular personal tax return.

The normal tax rate on incomes of individuals who are citizens or residents of the United States is 4 per cent on the first $4,000 of net income and 8 per cent on all in excess of that amount. Surtax rates on income of the calendar year 1922 and thereafter are graduated, beginning at 1 per cent of the amount by which the net income exceeds $6,000, and going as high as 50 per cent of the amount by which it exceeds $200,000.

"Net Income" Is Defined

It will be noted that income taxes are assessed upon what is termed in the law "net income." Net income for tax purposes differs in a great many respects from the ordinary business use of the term. For example, a great many items which in the ordinary course of business are charged up as expense are not recognized as such by the tax law. Questions as to what are allowable expenses, and therefore allowable deductions from gross income in computing taxable net income, are so numerous and varied that no general statement can be made as to rules governing. The determination depends on the facts and circumstances of each individual case. Care should be taken to preserve a contemporaneous record of all items of expense, and in case of doubt as to the propriety of any deduction the law and regulations should be examined, and perhaps advice of counsel secured.

It is important to distinguish between capital expenditures and current expenses of operation. Broadly speaking, capital expenditures are those items that are properly viewed as additional investments in the hospital plant itself, as distinguished from those for its maintenance and operation merely. They are not deductible expenses in computing net income. However, wear and tear, or in other words depreciation and obsolescence, of plant, equipment, etc., are allowable deductions from income before computing the tax.

MICHIGAN DRAFTS BILL TO PROTECT HOSPITALS AGAINST FRAUD

Sponsored by the Michigan Hospital Association, a bill providing for the protection of hospitals and sanitariums against nonpayment of bills, will be presented to the proper committee of the state legislature. Full text of the proposed bill follows:

Section 1. Any person who shall register as a patient at any regularly conducted hospital or sanitarium and who shall procure treatment or services from said hospital or sanitarium without paying therefor, unless credit is asked for and given by express agreement at the time of registration, or who shall have made any fraudulent statements at the time of securing credit, shall, upon conviction thereof before a Justice of the Peace, be adjudged guilty of a misdemeanor and shall be punished by imprisonment in the county jail not exceeding sixty days, or by a fine not exceeding $200 or by both fine and imprisonment in the discretion of the court. Neglect, on inquiry at the time of registration, to state inability to pay shall be construed as showing intent to defraud.

Section 2. Any person who shall register another as a patient at a regularly conducted hospital or sanitarium, which patient shall procure treatment or services from said hospital or sanitarium without paying therefor, unless credit is asked for and given the patient by express agreement at the time of registration, or who shall have made any defraudulent statements at the time when credit was given, shall be liable for the bill incurred by the patient and in default of payment shall, upon conviction therefor before a Justice of the Peace, be adjudged guilty of a misdemeanor and shall be punished by imprisonment in the county jail not exceeding sixty days, or by a fine not exceeding $200, or by both fine and imprisonment in the discretion of the court. Registering another, under the terms of this section, shall be construed to include all persons, who, by correspondence or by personal attendance at the hospital or sanitarium with the patient prior to or at the time of registration, have assisted in securing the admission of the patient, knowing or having reason to believe that said patient is unable or does not intend to pay, and have not specifically indicated that they would not be liable.

Section 3. Nothing in this act shall be construed as referring to a person who is admitted as a free or charity patient.

Nursing is an art, and if it is to be an art, it requires as hard a preparation as any painter's or sculptor's work, for what is having to do with dead canvas or cold marble compared to having to do with the living body?—Florence Nightingale.

"We haven't all had the good fortune to be ladies; we have not all been generals, or poets, or statesmen; but when the toast works down to the babies, we stand on common ground—for we've all been babies."—Mark Twain

THE DEBT WE OWE TO PASTEUR

By HORATIO M. POLLOCK, Statistician and Editor, New York State Hospital Commission, Albany, N. Y.

ON DECEMBER 27, 1822 in the little village of Dôle in eastern France, Louis Pasteur was born. His father, Jean Joseph Pasteur, was a tanner who in his early manhood had been a valiant soldier in the army of Napoleon Bonaparte and had risen to the rank of sergeant major. Louis Pasteur's mother belonged to an old plebian family without special distinction. She was said to be active, enthusiastic and full of imagination, while her husband was reserved, slow of thought and given to introspection. Their home life was happy in spite of the heavy burdens that both had to bear.

Louis Pasteur was their third child. At the time of his birth there was nothing in his ancestry or in the environment of his home that would warrant any prediction other than that he might become a respectable tanner or tradesman and maintain the ordinary standards of his class. What he did become was due not to special gifts nor to favorable circumstances but rather to well-directed, steadfast work.

Calls Pasteur Greatest Benefactor

Louis Pasteur became the world's greatest benefactor. Search where you will among the annals of the great of all countries, you will find no one whose work has been so far reaching in its effects or has so benefited the whole human race. In saying this I do not forget the many gifted men to whom we owe so much of our modern civilization. But Pasteur's work was all-embracing. All that are now living in civilized countries owe tribute to him and the generations to come will all be richer, healthier and happier because of his work.

Pasteur began his professional career as a chemist and won distinction for his researches in crystallography. He then studied ferments and soon made the remarkable discovery that fermentation was due entirely to germ life. When Pasteur made the announcement of this discovery he was opposed by all the leading chemists of the time.

By examining the yeasts used by brewers he learned to distinguish between beneficial and harmful organisms and was able to help the brewers of France make better and purer beer. His methods soon after were adopted by the brewers of Germany, England and other countries and have proved highly profitable to them. Everyone who enjoys his glass of Muenchner or even of "near beer" owes a debt to Pasteur.

He later studied the so-called diseases of wine and in a short time was able to show the wine producers of France how to make better wine and to keep their product from spoiling. For the preservation of wine he devised the method of sterilization, now known as pasteurization. Again he helped both producers and consumers of all countries.

Eradicated Diseases of Silkworm

At the request of the government of France, Pasteur studied the diseases of the silkworm that were fast destroying the silk industry of Europe. After five years of arduous research Pasteur found the causes of these diseases and worked out methods of preventing them. Through the adoption of these methods the silk industry again flourished in France and Italy. The procedure outlined by Pasteur at that time for the production of silkworm eggs free from disease is now in use in all silk growing countries. Every grower and manufacturer of silk, every woman who wears a silk dress and every man who wears a silk tie has reason to thank Pasteur.

In his study of ferments Pasteur reached the conclusion that the then prevalent theory of spontaneous generation was utterly false. He studied the subject from all angles and becoming thoroughly convinced of the soundness of his position he boldly set forth his views in the French Academy of Sciences. He was much ridiculed by some of the most learned members of that body and a heated controversy arose that continued several years. Pasteur's demonstrations were so thorough that the fair-minded scientists of the day gradually came over to his side.

Pasteur's papers showing the impossibility of spontaneous generation came into the hands of Joseph Lister, an English surgeon, and to him they were of tremendous import. Lister reasoned that if pus-forming organisms in wounds made by surgeons were not formed spontaneously within the body of the patient but were introduced by instruments or bandages or the hand of the operators, as Pasteur had shown, then the formation of pus might be prevented by the use of antiseptic measures. Pasteur was right and Lister was wise. Through the genius of these two men the horrors of the old surgery passed into history and modern surgery took its place. Every patient who comes on an operating table, every soldier on the field of battle, in fact every person who suffers a wound of any kind may well thank God that Pasteur and Lister lived.

Conquers Chicken Cholera and Anthrax

Pasteur studied chicken cholera and learned how it might be controlled and prevented. In the course of his work with the germs of this disease he made one of his most remarkable discoveries. For inoculation purposes he ordinarily used broth cultures twenty-four hours old. One day he inoculated some hens with a culture that had stood for a few weeks, and great was his surprise when he saw the hens recover after a short illness. He later inoculated these same hens with fresh virulent cultures along with others just brought from the market that he used for controls. The latter all died while the former all resisted the virulent germs. The tremendous importance of this incident was at once recognized. He had found an effective and practical method of producing immunity against contagious disease. This was the beginning of a long line of protective and curative antitoxins, sera and vaccines—a field in which nothing had been done since Jenner introduced vaccination against smallpox in 1796.

In 1877, Pasteur took up the study of anthrax, a disease that was ravaging the sheep and cattle of France. Dr. Koch, a German physician, had isolated the anthrax bacillus the previous year but had made no progress in the treatment or prevention of the disease. Pasteur also isolated the germ, cultivated it and conducted an elaborate series of experiments to find some method of combating the disease. The anthrax bacillus formed spores and therefore the cultures of these germs did not become attenuated with age like those of chicken cholera. Virulent spores were found in the graves of sheep that had died of anthrax ten years before. Pasteur tried cultivating the bacteridum at different temperatures. At 45°C it ceased to grow; at 43°C it could still be cultivated but the spores would not develop. Cultures grown at

this high temperature became attenuated through lapse of time like those of the germ of chicken cholera. Sheep inoculated with cultures twelve days old were mildly affected but thereafter were refractory to virulent cultures.

One of the editors of the *Veterinary Press* had little faith in Pasteur's vaccine and proposed a practical test on a large scale. Pasteur agreed, and the now celebrated test was carried out at a farm near Melun. Sixty sheep were placed at Pasteur's disposal; 25 were to be twice vaccinated and two weeks later were to be inoculated with virulent anthrax culture along with 25 unvaccinated ones; 10 were to remain untreated. Pasteur predicted that the 25 unvaccinated sheep would all perish and that the 25 vaccinated would all survive. A similar experiment was undertaken on a smaller numb.r of cattle. Great crowds witnessed the experiments and Pasteur's triumph was complete. His predictions were verified and the veterinarians who had derided him joined with the others in enthusiastic praise.

Later Pasteur studied and conquered a very fatal disease among swine known as rouget or swine fever.

By thus conquering contagious diseases among chickens, sheep, cattle and swine, Pasteur earned the gratitude of all who raise these domestic animals or use their products.

Announces His Germ Theory

On April 30, 1878, Pasteur read to the French Academy of Medicine his epoch-making lecture on the germ theory of contagious diseases. As a hypothesis the idea that germs were responsible for contagious disease had been suggested at various times but it was no longer a hypothesis with Pasteur. He had demonstrated it in many cases. Dr. Koch working independently had also demonstrated it in the case of anthrax. But in spite of these demonstrations there were many doubters among the medical profession and some boldly attempted to refute the theory. A new antiseptic surgery had become established and now a new era in medicine was being inaugurated. "Seek the microbe" become the slogan of progressive physicians. Pasteur had shown the way; a multitude could follow.

Pasteur's work was not finished. He turned to contagious diseases among human beings. Before completing his work with anthrax, he had isolated and cultivated the germ of puerperal fever and had explained the spread of the disease to the doctors at the Academy of Medicine. He now took up hydrophobia. His victory over this disease was his last and best known triumph.

He wanted to go on but as his health was declining he proposed the establishment of an institute for research and prophylactic work. The necessary funds were provided by popular subscriptions and Pasteur had the pleasure of seeing that ample provision had been made for carrying on the work he had started.

Pasteur died in 1895 at the age of 73. When 46 years old he had a cerebral hemorrhage that nearly caused his death. From that time on he was partly paralyzed. The prodigious amount of work he accomplished with such a handicap is almost beyond belief.

Pasteur Prolonged Life

One hundred years have elapsed since Pasteur was born and forty-five since he promulgated the germ theory. Many now living can remember the announcement of his great discoveries and can compare the two periods *before* and *after* Pasteur. William Osler in his history of medicine contrasts the periods in these words, "At the middle of the last century we did not know much more of the actual causes of the great scourges of the race, the plagues, the fevers and the pestilences, than did the Greeks. Here comes Pasteur's great work. Before him Egyptian darkness; with his advent a light that brightens more and more as the years give us ever fuller knowledge."

Vital statistics in this country were not very reliable in the years between 1870 and 1880, but it was commonly stated that the average length of life at that time for New York state was 33 years. An annual death rate in cities of 25 to 30 per 1,000 was not uncommon. Then came Pasteur and his successors. Sickness became less and the death rate began to decline. It dropped to 20 then to 18, then to 16 and to 14 and this year to 11. At the present rate the average length of life is not far from 60 years. The wonderful gain thus wrought in the short space of half a century largely through the work of Pasteur is the greatest achievement of the human race in its entire history.

All the world owes tribute to Pasteur. The direct economic gains from his researches amount to many billion dollars. But far transcending such material gains is life itself—life almost free from the many mysterious plagues that formerly beset it, and life prolonged so that it may come to complete fulfillment. For this we render homage to Louis Pasteur.

$2,250,000 GIFT TO UNIVERSITY OF IOWA FOR HOSPITAL

To assist in completing the building and equipping of a new hospital and teaching laboratories at the University of Iowa, the General Education Board and the Rockefeller Foundation jointly have given $2,250,000. This is said to be the largest gift ever made a tax-supported institution in the United States.

The new hospital and medical building will be erected on a new medical campus on the west bluff of the Iowa river where the Children's and Psychopathic Hospitals now stand.

The two foundations joined in proffering a gift of $2,250,000, providing the state of Iowa shall, over a period of five years, agree to complete the plant. This will require an appropriation of $450,000 a year for the next five years. The moment the general assembly of Iowa accepts the plan the university can begin the work, as the foundations' gift will be instantly available.

In spite of the fact that more than 20,000 state patients, mostly children, have been cared for and helped at the University of Iowa Hospital during the last few years, under the provisions of the Perkins Law, present facilities had come to be wholly inadequate and the board of education has realized that a new and modern plant has become a necessity.

TO BUILD HOSPITAL IN MEXICO CITY

Convinced that Mexico has regained a strong and capable government, Dr. Aureliano Urrutia, surgeon, has abandoned his practice in San Antonio, Texas, and after touring the United States and Europe will return to his home in Mexico City where he intends to build a $1,000,000 hospital and surgical school.

Dr. Urrutia, after studying medicine and surgery in Mexico City and France, became a professor in surgery at the University of Mexico, holding that position for ten years. For two years he was dean of the school and general director of the government hospital. He was in great favor with the Diaz, Madero and Huerto regimes, but came to San Antonio seven years ago, when the political situation interfered with his work.

THE DOCTOR AND THE HOSPITAL

By FREDERIC A. WASHBURN, M.D., Director, Massachusetts General Hospital, Boston, and Massachusetts Charitable Eye and Ear Infirmary.

THIS subject may be divided into two parts: (1) the hospital's obligation to the doctor, and (2) the doctor's obligation to the hospital.

1. The hospital's obligation to the doctor includes its obligations (*a*) to its staff, (*b*) to practitioners in general, (*c*) to physicians who send in patients, and (*d*) to medical students and interns.

(a) The hospital should treat its staff members with courtesy and consideration; it should grant their legitimate requests as far as practicable. It should make them feel that they are the strong right arm of the administration. By proper organization of an executive committee the staff should be made responsible to the trustees for recommendations of professional policies and staff nominations.

(b) The hospital and its staff should share with practitioners in general the advantages which accrue to the fortunate individuals who are on the staff. The hospital may place at the service of local physicians the resources of its x-ray, metabolism, cardiological, chemical, and pathological laboratories insofar as it can do so without interfering with its own work.

Courses for Practitioners

The hospital may also give courses on certain days a week which may be attended by practitioners of the neighborhood. In Boston such courses have been very successful and much appreciated. They have been chiefly a comparison of clinical and pathological findings with a demonstration of pathological material. Leaders in this work have been Drs. William H. Smith, Oscar Richardson and Richard C. Cabot.

The general practitioner always has patients with obscure maladies for whom he needs consultation and advice. He wants laboratory and x-ray examinations and, perhaps, the opinion of several specialists. For the rich, these things are provided by admission to private wards and hospitals and in the offices and laboratories of specialists. The poor have the wards and out-patient departments of our general hospitals.

The Massachusetts General Hospital has tried to provide a clinic of consultation for people of small means. Twice a week in the afternoon this clinic is held. Representatives of all professional departments are present. A small fee is charged. The money goes to the doctors after the hospital has been reimbursed for its extra expense for this clinic. Patients are admitted only upon recommendation of a physician. A report of findings is sent him at the conclusion of the examinations. It may be necessary for the patient to come a number of times but no second charge is made. Small laboratory fees are necessary. The patient is referred back to the physician. No treatment is given. The hospital has received repeated assurances from physicians using this clinic that it has been of great help to them in their treatment of patients of small means. The physicians upon the staff have given freely of their services to this clinic. The recompense is meagre but they have felt that they owed this service to their fellow practitioners less fortunate than they in hospital affiliations.

Service to the physician on a broader scale may be exemplified by the case records published by the Massachusetts General Hospital and edited by Drs. Richard C. Cabot and Hugh Cabot. This publication is sent throughout the civilized world and is of benefit not only to physicians who have access to hospitals, but to many an isolated practitioner in the remote wilderness.

Courtesies to Physicians

(c) How can the hospital help the physicians who send patients to it? The administration must see to it that all inquiries and applications are treated with courtesy. The admitting officer must try to put himself in the place of the harassed doctor at the other end of the telephone. He cannot grant all requests, but he can and must show the hospital's desire to cooperate.

After the patient is admitted, there are many courtesies that the hospital can show the physician who referred the patient. The physician should be notified by telephone of the time of operation. If the patient dies and an autopsy has been granted, the physician should be notified when it will take place.

Upon discharge of the patient, a letter may be written to the doctor giving a brief summary of the case, discharge diagnosis and, perhaps, suggestions for future treatment.

When a physician has referred a patient to the out-patient department a letter should be sent to him stating the diagnosis, and if he is sufficiently interested to make further inquiry, an abstract of record or other information should be sent him without charge. All this involves considerable expense and much work but it is an obligation to the physicians sending patients to the hospital. The institution is amply repaid by the kindly feeling thus gained for it.

Obligations to Interns

(d) The obligation of the hospital to its interns and medical students includes their education and training. This is so essential a part of a hospital's duty that I need only name it. The hospital must be sure that its interns receive at least a fair equivalent for the time and labor they give. Careful instruction should be given them and every effort made to see that they get the most possible from their service. The hospital will be repaid by the improved character of house officers and by the possession of fine loyal alumni.

There will be found few today to question the value of teaching to a hospital. It means keen, alert work in diagnosis and treatment. Fortunate is the hospital which has it.

We must see to it that students receive under proper restrictions every facility to acquire knowledge. It is best to make them as far as possible a part of the machine. This is the hospital's obligation to the medical student—the doctor of the future.

Doctor Must Combat Individualism

2. The second phase of this subject deals with the duty of the doctor to the hospital. By the very nature of his work the physician is an individualist. He works by himself or with a few others. He does not rub shoulders with the masses of men as does the business man. He is the autocrat of the sick room and if a surgeon, he is commander of the operating team. Hence, to work in the organization with many others is difficult for him and team

work of the hospital staff is necessary if results are to be obtained.

The successful doctor meets with something like worship from his patients, especially the women and perhaps from his house officers, medical students and nurses. Under these conditions we sometimes find a surgeon loses his sense of proportion. If he has not a well developed sense of humor he may even take for fact the estimate of him made by these youthful and exuberant partisans. Such a fault brings its own retribution. No one suffers like the vain man. He continually sees slights of his own importance and is always in trouble because of them.

Physicians do not take kindly to discipline. This is because they are individualists. I have known members of the staff to defy authority and state publicly that they would do certain things in spite of the well considered regulations laid down by the executive committee of the staff, trustees, or the director. Such action, of course, can only result in the confusion and humiliation of the perpetrator.

Speaking roughly or rudely to nurses has in the past been a habit with some men, particularly surgeons in the stress of an operation. If a man appreciated how it reacts against his own reputation we should soon hear no more of it.

I have known members of the staff to speak of the administration of the hospital in a disrespectful manner before house officers, nurses, or students. This cannot be ignored, for from it grows insubordination and contempt of authority.

With all these faults I wish to record my belief that among the physicians of a community you will find the highest ideals, the most generous motives, and the kindest and fairest treatment of their fellowmen of any group, bar none. In the two hospitals of which I have the good fortune to be director, I have met with the most cordial cooperation from the staffs. The team work has been good. The faults which I mention have been met only occasionally.

Physician Must Give Best Service

The physician appointed upon a hospital staff has an obligation to give adequate time and the best service that is in him to the hospital. He draws good from his service only in proportion to the work he puts into it. A hospital service should mean to a man the opportunity to perfect himself in his profession. If he is a surgeon, he becomes manually expert and improves his surgical judgment. If he is a physician, he sees many more patients at the hospital than he would outside and thus his clinical experience broadens. He comes into contact with other keen minds, and slovenly work is not likely to be tolerated. Service to his fellowmen is expected of every physician worthy of the name. The profession is not yet seriously tainted with commercialism. The member of a hospital staff has an opportunity to do much good for humanity. This may be in the actual care of patients, laboratory or research work, and the wise counsel or loyal support of those who are trying to make the hospital a success. Members of a hospital staff who are using their position simply for their own financial gain, or to increase their prestige, are of no use to the institution and should be driven from its sheltering arms.

Need Some Full-Time Men

The present hospitals of the country are in a transition period of staff organization. We have always known that between members of the staff of equal ability a man's value to the hospital is determined by the time, work and thought which he gives to the hospital. As the complexity of methods of diagnosis have increased and as the difficulty of keeping in touch with others' progress increases —not to speak of making progress for oneself—it has become more and more difficult for the busy practitioner to be on the hospital staff and give the hospital the sort of service required today.

From this fact has developed the full-time or paid part-time hospital physician and surgeon. This is a development in the right direction because it gives to the hospital, time, work and thought and continuity of planning and effort which the busy practitioner can never give it. On the other hand, I wish to record my firm belief that the hospital will always need on its staff for the direct care of its patients, men who earn their living in the practice of medicine and surgery; but only such men will be needed by the hospital as are willing to make a very definite monetary sacrifice so that they may give it an abundance of time. Such a man should take his reward in his increased prestige, the fact that this connection makes him a better physician or surgeon, and in the satisfaction of forwarding the interests of the leading factor for good in our modern civilization—the great hospital of the community.

The legitimate line of progress in the future would appear to be that all important professional services will be headed by men paid by the hospital for a large part of their time; that under them will be a group of paid men whose time is devoted to considerable extent in teaching and research; but that working with these men and with their rights zealously guarded by the hospital will be the unpaid practitioner who is willing to devote considerable time to the hospital work.

Protect Public Against Untrained Surgeons

It is an unfortunate fact that there are physicians in considerable numbers who have never received the requisite training, but who are trying to do surgery. To many of our people a hospital is a hospital and any doctor is a surgeon. A way must be found to protect these people. There should be some recognized mark of the competent surgeon and the trustees of all hospitals could then forbid others to operate in their institutions. The private commercial hospital would probably require state regulation.

A hospital must have autopsies if it is to check up the cause of its failures. The family physician can help the hospital there more than anyone else, and in aiding the hospital he adds to his own information.

It sometimes happens that the wrong diagnosis is made or the wrong treatment undertaken at the hospital. The hospital would be helped if the physician would send the patient back or write a letter calling attention to the error as it becomes clear.

In general, we may fairly say that if a hospital is doing its full duty, there will be no difficulty about it receiving the loyal support of the physicians of the community.

Without a good professional staff composed of able, unselfish men, a good hospital is impossible. Without a good hospital, correct medical teaching, progress in medical science, and good care of the sick cannot be had.

We should, then support the work of the American College of Surgeons which is making a notable contribution toward better surgeons, better staffs, and better hospitals.

A knowledge that another has felt as we have felt, and seen things, even as they are little things, not much otherwise than we have seen them, will continue to the end to be one of life's choicest pleasures.—R. L. Stevenson.

THE DOCTOR'S RELATION TO THE SMALL COMMUNITY HOSPITAL

By B. L. EIKER, M.D., Leon, Iowa.

FEW people have any accurate conception of what they are living for, they have no fixed or definite object in life; and are simply tossed about by civilization like rubbish by the tide. To this rule the rank and file of the medical profession are no exception. The average doctor is a willing listener to the siren voice of the salesman and as eagerly purchases awe-inspiring devices for his office as a hungry child plucks a green apple—and usually with about the same results. Many physicians are constantly trying new drugs, and endeavoring thereby to impress upon the public that they at all times have one ear to the ground to catch the first whisperings of advanced medical science. Their whole professional life is spent in an endeavor to convince the public of their own great worth. It follows, therefore, that no small community hospital can hope to function properly or to receive much benefit from a medical profession made up largely of men with no vision, men who do not think, men who have no desire to benefit anyone except themselves. To serve the modern small community hospital properly, the doctor should possess the three following characteristics: First, he should be a man with a well balanced mind, a mind capable of arriving at some definite and logical conclusion; second, he should be thoroughly educated and trained along lines pertaining to natural science, and upon this foundation he may safely lay a medical education; third, he should be a man whose habits and morals are at all times in strict keeping with his knowledge and with his attainments.

The Doctor's Character

A hospital, be it large or small, is a place where one puts his life in the hands of others; from it he emerges, cured, benefited or in a casket. Life is the dearest possession on earth and should be entrusted to no one who is deemed unworthy. The doctor must be the type of man whose work and deportment, past and present, are worthy of confidence. Primarily the success of the small community hospital depends upon the kind and character of its doctors. Reformed habitues, of whatever type, are like birds with the broken pinions, "They never soar so high again," and the hospital manned by doctors of this kind is sorely handicapped.

History shows that one great extreme follows another. The American people have been reckless and extravagant for the past five years. Bluff and pretense have had as high a market value as have ability and honesty. Our country is now beginning to see the folly of such standards and to reap the harvest of thistles instead of grain. It is entering upon a period of conservatism, a period when knowledge, ability, honesty and conscientious work will receive their true appreciation and reward. The octopus of conservatism is slowly but surely entwining its tentacles about the slimy and many-headed serpent of bluff, pretense, dishonesty and crime. The medical profession is at the head of this great crusade and has already begun the process of weeding out its less desirable members. The pretender with his fads and fancies may flourish for a season, but his life is short, his career is doomed and his only hope is to change locations frequently.

The doctor of this day must bear the same relation to the small community hospital that the modern minister bears to the church. He must point the way to avoid disease as well as to assist in its cure. By so doing, he will assist in making the modern community hospital a health center. Hospitals of the past have performed but two functions—surgical work and the care of incurables so as to make their last days more comfortable. The modern hospital must not only look after these two important functions, but in addition must assume the duty of helping to prevent disease. To this task the doctor must give freely of his help.

Our country appears to be headed towards hospitalization. The thoughtless but well-meaning public when confronted by disease, war or pestilence turns from its "opathies," "isms," fads and fancies, and flees like helpless sheep pursued by raging wolves toward scientific medical hospitals for relief. Doctors now in active practice and the younger ones to follow must meet and relieve these people promptly, and at the same time impress upon them the utter folly of half-baked, poorly trained, and deluded minds attempting to practice the healing art. In addition to this the doctor should practice what he preaches and himself live what he teaches.

To the young man and woman of character, ability, and honesty a greater field of service was never open than now stands before them in the study and practice of modern medicine. The day of single-handed work is past, the doctor and the community must work in conjunction with each other. Each one has a duty to perform in order that he may accomplish the one great purpose, namely: To make the community a better place in which to live and a safer place in which to rear children.

"Pretence, like the mushroom grows,
It dies 'ere it is born,
Dishonest work has no reward;
It's crown is from the thorn.
He who seeks to help mankind
With honest work and true,
Helps generations yet unborn
As well as me and you."

RESEARCH ON EDIBLE GELATIN

The Edible Gelatin Manufacturers of America, Inc., announces the establishment of an industrial fellowship in the Mellon Institute of Industrial Research of the University of Pittsburgh, for the purpose of ascertaining the real food value of edible gelatin in its manifold applications in the American dietary. The founding of this fellowship is the outgrowth of the desire of the members of the association to uphold high standards in the manufacture of this food and to have available for their own use and for the trade data of scientific and technical nature respecting its advantageous use in food industries.

In addition to experimental investigations, a correlation of all available facts regarding edible gelatin will be made, to be held at the disposal of all users and prospective users of the product. It is hoped that real service may be rendered by supplying scientific data and technical service.

APPLYING MINIMUM STANDARDS TO HOSPITALS*

By FREDERICK W. SLOBE, M.D., Hospital Standardization Department, American College of Surgeons, Chicago.

DURING the past decade an increasing attempt toward standardization in all fields of human endeavor has been apparent. At first, in certain respects, standardization in medical and hospital activities did not keep pace with its development in other lines. The American College of Surgeons, in its hospital standardization campaign, endeavored to correct this shortcoming. In essence, the application of the minimum standard to hospitals means the closest correlation of all medical and hospital efforts, and the highest degree of mutual cooperation between each individual associated directly or indirectly with hospitals.

"This entire campaign in the application of the minimum standard involves a three-sided relationship between the hospital, the staff and the community—represented by the board of trustees. The hospital is to do its part by furnishing facilities and equipment and cooperating with all reasonable suggestions from the staff. The community and its board of trustees are to do their share by intelligent interest in the hospital, a knowledge of the broad principles underlying hospital care and adequate financial support. If both the hospital and board of trustees realize their obligations and meet them fully, failure to obtain adequate results may be ascribed to the medical staff. Hospitals are built for the patient, their prime purpose being the care of the sick, and it is the simple duty of each physician to cooperate with hospital in all their efforts toward improvement. Increased cooperation will bring about a fuller realization of the spirit of the standard."

Personal contact furnishes the best index to the application of this standard. Our hospital surveyors, during personal visits to 1,600 of the general hospitals in the United States and Canada, have had certain observations impressed upon them so repeatedly that a brief enumeration of these impressions seems warranted.

Obey Letter But Not Spirit

In actual operation it has been demonstrated that it is no easy task to live up to the requirements of the minimum standard to the fullest extent, though at first sight it appears to be a comparatively simple, brief set of principles. Many hospitals are nominally living up to the letter of the standard, having adopted all its recommendations and put them into effect, without really living up to its true spirit. It must be realized, of course, that each hospital after adopting the minimum standard goes through various stages of advancement, beginning with the installation of the bare essentials of the program and gradually elaborating them until finally the full appreciation of their meaning is realized.

The staff situation involves so many angles that it is difficult to approach it in so short a space of time. There is no standard type of staff organization applicable to all hospitals. Local variations demand varied types of organization, hence it is for each hospital to decide which type best meets its individual needs. There should be, however, a definite organization, including the formation of sufficient committees to cover the various activities of the hospital, in order that responsibility for these activities be accurately centralized. The greatest difficulty here lies in the small hospital in the small community where the entire medical personnel of the community uses the hospital. In such instances, it may be wise in the beginning to include on the hospital staff all the ethical practitioners in the community, all of them being expected to attend the hospital meetings and to do their share in assisting the hospital toward meeting the requirements of hospital standardization. Later, various improvements and modifications in the staff organization may be instituted. A too radical or partisan arrangement of the staff in the beginning may do much to retard the subsequent development of the organization.

Another difficulty lies in hospitals which have a large list of so-called "courtesy" staff members in addition to their "regular" staff. Those physicians who utilize the hospital only occasionally are often less interested in its progress. Even though they use the hospital at infrequent intervals, they should be expected to live up to all the obligations which the hospital expects of its regular staff. The "courtesy" staff members should be informed at frequent intervals concerning the requirements of the hospital, that they are a part of the hospital so long as they send any of their patients there, and that they are expected to attend the staff meetings in case they have any patients in the hospital during the month preceding the meeting. By having these physicians on the staff meeting program from time to time, and encouraging them to feel that they are a part of the hospital, they are stimulated to greater cooperation.

The analysis of hospital results is the goal of our standardization program. Much confusion still exists concerning methods in which this should be brought about. Naturally the same method may not be applicable in all hospitals. The College features the regular monthly staff conference because it is the means by which the staff analysis is best undertaken in the vast majority of hospitals. It is indispensable in nearly all institutions; in only a small percentage can it be considered impractical, notably in hospitals with a staff of only one or two physicians where a formal conference is, of course, out of the question.

Teaching hospitals closely affiliated with medical schools and certain group clinics connected with hospitals may be analyzing their results in other ways, the former by a presentation of patients before students and the latter by a close association of the physicians. Even in such institutions, however, there is no question but that there are many occurrences of great clinical importance which lose much of their educational value because they have not been brought to the attention of the entire staff. The group clinic, therefore, should have a regular resume of its results brought before its staff. The hospital of only two or three physicians should conduct a similar though more informal review, and the teaching hospital may well bear in mind the added impetus which an analysis of this kind may bring about.

It is the feeling of the College that a large part of the monthly staff meeting should be devoted to an analy-

*Presented before the Hospital Conference of the Clinical Congress of the American College of Surgeons, Boston, October 23, 1922.

sis of the casualties including the deaths, infections, complications, unimproved cases and, in fact, anything closely related to the clinical work in the hospital. The discussion is impersonal, being a study of certain results and the relationship of those results to the hospital. An attempt at humiliation should not be countenanced; a clear, straightforward, educational discussion, however, will not invoke antagonism. Our failures are the greatest assets in the light of our experience if we only face them squarely.

There should be a program committee which carefully works out the program for each meeting; the record committee should analyze the charts and case records, and together with the program committee and historian should select those to be reviewed at the staff conference. These are given to the program committee, which notifies each physician that he is to present the history of a certain patient. Many hospitals confine almost their entire staff meetings to the analysis of their results; others add to the meetings a brief review of interesting articles in current literature, demonstrations of pathological specimens, reports of follow-up work and other items of interest. Hospital business should not consume the time for this important work; business matters should be handled at another time. It is for this purpose that the analysis sheet has been advocated by the College as a method of bringing before the staff a periodical review of its results. Various modifications to this sheet can, of course, be made but it serves as a useful means of suggestion.

Hospitals with a large list of "courtesy" staff members have difficulty in deciding whom they should expect to attend the meetings. Many hospitals solve the problem by inviting all to attend but *requiring* the attendance of those who have had patients in the hospital during the preceding month. Some physicians with multiple staff appointments object to the staff meetings, stating that too many of their evenings are thus occupied. It is uncommon to find many physicians who are extremely active in more than two or three hospitals and they should be willing to devote two or three evenings a month to their hospital affiliations. If they are connected with many other hospitals, it is usually in a consulting or relatively inactive capacity which does not require regular attendance.

Should Have Community Medical History

Relative to case records, the hospital is the logical repository for the medical history of a community. Physicians' office records often are so meager and varied that they cannot be depended upon to supply complete information in time of need.

If hospitals have deficient records in spite of a sufficient number of interns it is due to the fact that the interns are not performing their duties because of lack of supervision on the part of the administrative and professional staffs. The available number of interns is insufficient to supply the demand, hence, record clerks or historians are needed. Some hospitals which have only a part-time historian fail to realize the many functions of a case record department. In the future every hospital of twenty-five or more beds will have at least one full-time record clerk. At present, however, many hospitals find it satisfactory to utilize part of the historian's time in other activities of the hospital. In such institutions, record clerks should endeavor to perform the functions of an intern as regards the records as far as possible. This means the recording of a full comprehensive personal history, and taking by dictation the physical examination records, progress notes, and condition on discharge; keeping in touch with the current records on the floors to see that histories and examinations are written shortly after admission and before operations; and observing whether working diagnoses and progress notes are recorded.

In the cities a not uncommon difficulty exists in certain hospitals used almost exclusively by physicians who have studied their patients thoroughly in their offices, have had a large volume of diagnostic work performed outside, and bring the patients to the hospital only for operation or treatment, failing to realize the necessity for furnishing the hospital with the records. Such physicians often keep good office records; if so, the hospital should be sent copies; if not, the physician should cooperate with the efforts of the hospital to secure accurate records for its files.

Incomplete Records Indicate Little Supervision

A very common deficiency in hospitals which have recently instituted record systems is a very brief, stereotyped form of case record which seems to fit about eighty per cent of the patients and gives one very little knowledge of the diagnosis. In most instances this is due to lack of staff supervision of interns, record clerks, and of the records themselves. Operation records are notably weak in a complete description of the exploratory findings and operative technique. In order to insure accuracy they should be dictated or recorded during or immediately after all operations. Each physician is responsible for the record of his patient even though most of the labor may be relegated to an intern or record clerk. If so, the physicians should take sufficient time to insure the accuracy of the records. This will save him subsequent embarrassment, as well as insuring the patient and the hospital of accurate reports for future reference.

Sufficient space for the record room, conveniently located, must be available; in order to be used frequently and accurately, records must be immediately accessible. This means good filing cabinets and cross indices for names and diseases. Whether filed in groups by disease or filed numerically is immaterial so long as the record can be obtained immediately. There is no one standard disease nomenclature which is used by the majority of hospitals. At the present time, therefore, the international classification of the bureau of census, Department of Commerce, and the various well known hospital nomenclatures are being utilized.

Hospital Should Make Use of Records

Another great failing of hospitals is to make use of the records. After expending a great amount of time and money on them, it is a great economic as well as an educational loss if records are not utilized to the fullest extent. By using the records is meant chiefly the analysis of hospital results mentioned in connection with the staff meeting and with the work of the record and program committees. After a hospital has a complete record department, material of great statistical value will become available to an increasing extent each year. This will be particularly true when hospitals adopt more uniform nomenclatures so that their statistics are uniformly comparable.

The question of laboratory service involves varied interpretations according to the size, type and location of the hospital. Each hospital should have a laboratory of its own for the performance of the usual routine examinations such as various chemical, microscopic and bac-

teriological analyses. Naturally, the more technical tests may have to be performed outside as the available number of serologists and pathologists is not sufficient to supply each hospital. This applies especially to the hospitals in the small communities, in which the service is considered satisfactory if an adequate number of specimens is sent to competent laboratories.

Supervision of Technicians Necessary

Technicians should have adequate supervision either by a part-time pathologist who visits the hospital at regular intervals, or by some staff member fully versed in laboratory technique and interpretations. Some hospitals with the most complete laboratory equipment perform fewer tests per patient than hospitals with relatively meager equipment. Laboratory service, therefore, is not always proportionate to the laboratory facilities themselves. This discrepancy is often due to the system of laboratory charges and affects particularly private patients, where a separate charge is made for each test performed. There is often a hesitancy on the part of physicians to prescribe certain laboratory tests if they realize that a separate charge will be made each time. This can be obviated first by the adoption of a flat-rate fee to include the usual laboratory examinations, or by charging no fee at all if the cost of the laboratory is determined and subdivided by adding a certain charge to each room or rate per day. The hospital then can insist upon a certain laboratory routine without adding a separate charge for each test performed. Tissue examinations must be included in this, in order that the hospital may have every specimen sent to the laboratory. This should be as rigid a part of the operating room technique as the sterilization of instruments. As many specimens as possible should be sectioned and every specimen should have at least a gross pathological report.

Naturally there can be no definite so-called minimum recommendations as to what routine tests a hospital should perform, owing to the varying conditions in hospitals and the danger of hospitals limiting their tests to the minimum as a result. In addition to the almost universally routine urinalysis, however, a routine hemoglobin estimate and leukocyte count are becoming increasingly prevalent. These, in addition to a routine examination of tissues, serve as a good basis for a minimal, routine laboratory requirement, but physicians should be encouraged to a more routine use of laboratory facilities exceeding any arbitrary or "minimal" requirement.

Three Sided Relationship Under Standard

In x-ray laboratories, the problem of adequate roentgenological interpretation is a serious one, as there is an insufficient number of trained roentgenologists to supply the demand. Here also the question of supervising each x-ray technician is important. A roentgenologist should be in charge of each x-ray laboratory, even though he spends only a few hours there each day for the interpretations. The responsibility of these interpretations should be in the hands of these trained roentgenologists. If left to the various physicians, the patients will not get uniform x-ray service. Should every small hospital have a complete x-ray equipment? The answer in general is in the affirmative, although many small hospitals have access to very complete adjacent x-ray laboratories which serve them very well in many instances. The question, however, of giving service to patients who are not ambulatory would seem to require at least a portable x-ray equipment in every hospital.

This entire campaign in the application of the minimum standard involves a three-sided relationship between the hospital, the staff and the community—represented by the board of trustees. The hospital is to do its part by furnishing facilities and equipment and cooperating with all reasonable suggestions from the staff. The community and its board of trustees are to do their share by intelligent interest in the hospital, a knowledge of the broad principles underlying hospital care and adequate financial support. If both the hospital and board of trustees realize their obligations and meet them fully, failure to obtain adequate results may be ascribed to the medical staff. Hospitals are built for the patient, their prime purpose being the care of the sick, and it is the simple duty of each physician to cooperate with them in all their efforts toward improvement.

The principles of the minimum standard have been adopted by over four-fifths of the general hospitals on this continent. A progressive improvement in hospitals is everywhere apparent; but there is need for a closer insight into the real meaning of these principles. Let us hope, therefore, that each hospital superintendent, each member of a board of trustees, and each physician will see more clearly his individual obligation and responsibility and that the increased cooperation resulting therefrom will bring about a fuller realization of the spirit embodied in the application of the minimum standard.

SANATORIUM FOR PRISONERS OPENED

The new state tuberculosis sanatorium for inmates of Michigan's penal institutions is completed and ready for occupancy, according to information received from Dr. R. M. Olin, commissioner of the Michigan department of health. The building has been erected since July 1, 1922 at a cost of $10,000.

This sanatorium is one of the tangible results of the work of the health department's bureau of institutional health administration, organized in September, 1921 to cope with the deplorably unhealthful conditions then existing in state prisons and reformatories. The surveys made by the department of health showed that tuberculous prisoners were quartered with those who were not infected with the disease and that the living conditions were such as to encourage a rapid spread of tuberculosis.

Members of the health department believe that the new sanatorium will aid in the cure of persons who have already contracted the disease and halt its spread among other prisoners.

Another undesirable feature of Michigan's penal system was uncovered by this survey. It is the indiscriminate housing of mentally subnormal persons with those of normal mentality. A psychiatric unit, authorized to investigate the mental status of incoming prisoners in these institutions has now been made possible by the state administrative board.

If present plans mature, this clinic will attempt to solve the problem of segregation.

It is wholesome and bracing for the mind to have its faculties kept on the stretch. It is like the effect of a walk in Switzerland, upon the body. Reading an essay of Bacon's for instance, or a chapter of Aristotle, or of Butler, if it be well and thoughtfully read, is much like climbing up a hill, and may do one the same sort of good. Set the tortoise to run against the hare, and even if he does not overtake it, he will do more than ever he did previously—more than he would ever have thought himself capable of doing. Set the hare to run with the tortoise, he falls asleep.—Guesses at Truth.

RECENT HOSPITAL DECISIONS

By DOROTHY KETCHAM, Ann Arbor, Mich.

A RECENT decision of the supreme court of Ohio upholds what is known as "the pay-patient law," the claim being made by Hamilton County that the law is unconstitutional, violating the rights of the defendant.

The sections of the general code (1898 Art. 1815-12) in force during this period of the proceeding, provided specifically "that the cost of support of any county's inmates at the institution for feeble-minded youth should be charged against such county," presenting the manner of requisition and payment.

It is contended that the provision violates the state constitution reading, "Institutions for the benefit of the insane, blind, deaf, and dumb shall always be fostered and supported by the state; and be subject to such general regulations as may be prescribed by the general assembly."

It was contended that the state is ordered to support such institutions and that the legislature can neither authorize nor order a county to levy a tax to meet the expense.

As early as 1822 in the state the constitutionality of a somewhat similar provision was challenged. Since that decision "provisions have been enacted requiring persons liable for the support of one committed to such an institution to pay a portion of the expenses of the maintenance of such a person, but, in the case of indigency, the several counties are required to make payments for the maintenance of persons committed therefrom to such institutions. If the requirement that individuals liable for the support of a person committed pay a portion of the expense of maintenance, or that it be realized out of the property of such person himself, is not in conflict with the constitutional provision referred to, it is difficult to see how a requirement that in the event of indigency the county from which the patient is committed shall bear such expense is violative of such constitutional provision. The institution is fostered and supported by the state, notwithstanding the requirement that those able to support and liable for the support of a patient committed thereto be required to contribute to such expense, and that where such conditions do not obtain the county from which the patient is committed be required to do so."—*State vs. Hurve, 137 N. E. 167.*

THE property of the Seaside Home owned and used by a corporation of New Jersey for charitable purposes was held by the supreme court of the state, November 8, 1922, to be exempt from taxation although not in actual use on the date of the assessment.

The question was: "Was the home actually used within the meaning of the statute, as a home, at the date of the assessment? The property was used exclusively as a summer home for eighteen or twenty years. It is solely adapted for summer use. The particular purpose and use of the property is a summer home for children and old persons supported by charity. There is no question raised as to the charitable purpose of the home."

The taxing statute under which exemption was claimed states: "All buildings actually and exclusively used . . . for religious, charitable or hospital purposes. . . ." The state board, it seems, held that the words "actually used" means in actual use on the day of the assessment. This interpretation the court declares is too rigid, ignoring the spirit and purpose of the statute. "The test of exemption cannot be made to turn upon the fact of an accidental closing of the home depending upon the weather, sometimes earlier, sometimes later in the season." On the other hand the court distinguishes this case from certain others in which property "intended to be used for a charitable purpose" but which had never been used for such purpose, and was not in use on the date of assessment, was taxed. "Intention to use property cannot be made the test of exemption from taxation, under the statute."—*Seaside Home vs. State Board of Taxes, 118 At. 705.*

THE supreme court of Mississippi on November 21, 1922 stated that the "hospital conducted for private gain is liable for injuries to a patient resulting from the negligence of its employes. The business of such a hospital carries with it an implied obligation to give the patients therein reasonable care and attention."

It seems that a child of eight who had an attack of appendicitis was taken to the hospital for care and was there operated. Shortly thereafter when there was no attendant in the ward, she fell off the bed on which she was lying and soon thereafter died. The court adds that the liability of the appellee is a question for the jury to decide and consequently a previous decision was reversed and the case remanded.—*Maxie vs. Laurel General Hospital, 93 So. 817.*

THE hospital in this case prior to 1921 was managed by five trustees, three officers being ex officio members, and two being selected from the employes by the president. That year an action was brought by the state against the hospital association and its trustees, challenging among other things the validity of the method by which the two trustees were chosen. It is unnecessary to go into the details of the case, it being sufficient to say that where the stipulation entered into, provided that "all trustees shall be persons of good moral character," the supreme court of Kansas, November 4, 1922, held that the possession of a good moral character becomes an essential qualification to hold office. It was held that one of the trustees who had recently committed embezzlement "is not eligible thereto, unless upon a showing of reformation, and his ineligibility is not affected by the fact of his having received a plurality of votes at the election."—*Hempstead vs. Atchison, Topeka and Santa Fe Hospital Association.*

The importance of resistance is everywhere and in all things apparent. It's the resistance of the water against the propeller that makes navigation possible. It's the resistance of the steel rails against the wheels of the great mogul engine that makes it possible for the Twentieth Century Limited to run the 1,000 miles between New York and Chicago in eighteen hours. The resistance of the road-bed to the rubber was necessary to Resta's famous automobile record of two miles a minute.

If there were no resistance in life and business, then there would be no room at the top for the live wires. Do not accept the resistance which you meet in your work as an unnatural and insurmountable obstacle, but merely as the necessary "traction" by which you will move forward.

THE INFORMATION DESK

No satisfactory solution to a problem in your hospital is too trivial to pass on to other workers in the field. No question that perplexes you is too small to bring to the attention of those with greater experience in the field. This department is the readers' exchange, and its usefulness is dependent upon the measure in which its readers share their problems and their discoveries.

AN EPIDEMIC AND NO ISOLATION WARD

What is the Prairie Center General Hospital to do in case a small epidemic breaks out? It has facilities for isolating only two patients and has no funds for building a separate isolation ward.

Here's what Dr. D. L. Richardson, superintendent of the Providence City Hospital, would do if he were running the hospital at Prairie Center:

Isolate the sick at the earliest possible moment.

Put immune patients in alternate beds with non-immune.

Observe all non-immune patients for the full incubation period of the disease.

Practice strict cleanliness where patients are isolated in the hospital, such as scalding of all utensils and frequent washing of hands in caring for patients under observation in the same ward.

"It is probably wise," says Dr. Richardson, "to keep non-immune patients under careful supervision, as already has been indicated, and to send them home at the first signs of infection. It would be best to send all children home who develop the disease in a small hospital where isolation can be poorly carried out, or not carried out at all, unless there are many other small children in the family.

"If isolation cannot be carried out in the hospital throughout the illness, it is better that one or two of the patients' family be infected than to have all the children in the hospital either exposed or infected."

IF DOCTORS WON'T WRITE HISTORIES

"What shall the superintendent of a small hospital do," asks one of our readers, "when she finds that the doctors will not write histories for the hospital's records. Our hospital has provided x-ray and laboratory records sheets according to the standardization forms, but the doctors are failing to make use of them."

There are mutual obligations in the matter of keeping records. It is the hospital's duty to have adequate equipment and personnel for an up-to-date record department. This includes a record department ample in size and readily accessible; satisfactory filing cabinets; card indices and record forms; and adequate personnel in the form of interns or one or more record clerks.

The obligation of the staff members is to make adequate use of this record department and to insure adequate and complete records for every patient. If the records are written by interns they should be carefully supervised and checked over by the physicians; if no interns are available the records should be dictated to the historian, subsequently to be re-checked by the physician; if no historian is available, each physician should personally record the essential data, although in such instances it is more difficult to obtain complete records due to the amount of time involved in writing a complete record.

The responsibility of a hospital in guaranteeing competent medical care in a community is becoming recognized more and more. If a hospital is to live up to this responsibility it must have the right to discriminate in its selection of its staff members.

Having instituted the necessary machinery and equipment for the case record department and the laboratory, the hospital expects the cooperation of its staff members in both departments. Through the record and laboratory committees the staff members are interviewed relative to their shortcomings, the effort being made to increase cooperation. If this fails, the executive committee may add its influence and *finally* the governing body of the hospital has the right to exercise authority *in refusing hospital privileges to those who persistently refuse to cooperate with the accepted standards of hospital practice.*

ARE SINKING FUNDS PRACTICAL?

Establishment by the hospital of a sinking fund to replace its buildings always is a good question for argument when hospital superintendents or trustees get together.

Mr. C. A. Lindblad, superintendent of Buffalo (N. Y.) Homeopathic Hospital, who has had experience in business as well as hospital administration, thinks that *while the establishment of sinking funds is theoretically desirable, practically the idea cannot be made to work.* On this subject he makes the following informal remarks:

"Few hospitals in our country are entirely free of debt and such institutions might seriously consider securing annually a sufficient amount in pledges or donations to equal the amount necessary to set aside as a sinking fund for depreciation and replacement of buildings. However, there is still a shortage of hospital beds in almost every community, requiring that hospitals continue to expand and add to their facilities for the care of patients. Added to this, the continually increasing standards in hospital work with its increase in cost of maintenance requires all that can be secured from patrons and friends to make the annual deficits as small as possible.

"If we were to consider hospital work from a business viewpoint only, we would simply increase our rates for

service until the income would be sufficient not only to care for the annual cost of maintenance but to allow for a surplus to be set aside for depreciation. The cost of hospital service would then be prohibitive to the large majority of the people, which is already the case in many of our hospitals, and as a result the hospital is not doing the work for which it was organized.

"It is the aim of every hospital to give a maximum of service or at least give the patient every necessary means for recovery at a minimum cost to the patient. To continue this work the hospitals everywhere are striving to increase their endowment funds and their annual contributions. The outlook at present even in our most prosperous hospitals does not indicate the probability of their being able to set aside or to raise funds for the specific purpose of creating a sinking fund for buildings.

"Aside from this, human nature is such as to make it impossible, in my opinion, to secure much of a response for such purposes. Those who contribute to hospitals, whether during their lifetime or by bequest, usually prefer to specify the purpose for which the money is to be used, and like to see something tangible result from their gift soon after it is given. Even endowment funds for the purpose of charity work are slow to grow, although the income tax laws have had a tendency to increase bequests for charitable purposes. I believe that any hospital doing a good work can count on the community responding to an appeal for new buildings at any time when such need is shown.

"Although only a matter of record, every hospital should provide for depreciation in its accounting system, and each year's report should indicate the amount required for the purpose. This varies with the character of building construction and the type of equipment therein. The government in its tax rulings, allows from 1 per cent to 3 per ment in its tax rulings allows from 1 per cent to 3 per that with the modern fireproof building, even less than 1 per cent is allowed for depreciation. In the case of furniture and apparatus the amount necessary varies from 8 per cent to as high as 20 per cent for such items as x-ray and motor equipment. In our own hospital we are at present charging 5 per cent on buildings and equipment, which can be reduced or increased as our experience may dictate.

"To indicate more clearly how we show this, there follows a copy of the income, and profit and loss account statement for the Buffalo Homeopathic Hospital for the fiscal year ending June 30, 1922. You will note that on operating or so-called maintenance account alone, we were enabled to close the year with a slight profit, but considering depreciation, an item I think every hospital should show in its annual report, we necessarily closed the year with a deficit."

INCOME AND PROFIT AND LOSS STATEMENT, JULY 1, 1921—JUNE 30, 1922.

BUFFALO HOMEOPATHIC HOSPITAL

Income

From Patients:		
Private rooms		$112,413.22
Ward		49,720.84
Operating room		15,960.25
X-ray		14,686.40
Special nurses' board		9,256.00
Anesthesia		6,160.35
Laboratory		4,897.75
Hydrotherapy		4,476.50
Delivery room		4,100.00
Ambulance service		2,627.76
Drugs		2,121.94
Cots		218.45
Food, extra		147.68
Electric fans		9.25
Miscellaneous		37.59
TOTAL OPERATING INCOME		$226,883.98

Expenditures

Expenses—operating		$224,162.90
Gain on operations		$ 2,671.08
Add—Income from other sources:		
Board of women managers	$ 6,303.60	
Donations	105.00	
Fund committee	3,283.97	
Discount earned	74.89	
Cash over	2.57	9,770.03
		$ 12,441.11
TOTAL OPERATING INCOME		
Deduct:		
Interest on mortgages and loans	$ 10,048.06	
Reserve for bad debts	2,316.94	12,365.00
Net gain, exclusive of allowance for depreciation		$ 76.11
Less reserve for depreciation		11,955.76
NET LOSS FOR YEAR		$ 11,879.65

WHEN PATIENT CONTRACTS CONTAGIOUS DISEASE, WHO PAYS?

Through a mistake in diagnosis on the part of an attending physician, Patient A who had a contagious disease recently was admitted into a certain hospital and Patient B contracted the disease. Consequently Patient B was quarantined for a number of weeks. Who should stand the extra expense—Patient B, the hospital, or the attending physician?

Dr. Herman Smith, superintendent of Michael Reese Hospital, Chicago, is of the opinion that Patient B should stand it. In support of his opinion he says:

"Assuming that the attending physician made a mistake and did not knowingly send in a patient with a contagious disease, I do not see where this situation varies from one in which a patient admitted for some non-contagious disease contracts a contagious disease in the hospital and another patient contracts this disease from the first. In some instances the courts have ruled that if hospitals exercise all due care to prevent transmission of disease, and in spite of these precautions, disease has been transmitted, the patient contracting the disease has no recourse against the hospital, because the hospital exercised due care to prevent this transmission and because patients entering hospitals must accept the ordinary hazards of hospital life.

"On this basis, *I do not see where the hospital would be obliged to take care of the patient free of charge, nor do I feel that the physician who made the mistake should stand the extra expense.*

"It is not an accepted principle, nor do I think it will be for a good while to come, for hospitals to accept patients for operations at standard rates on the basis that the patient should be able to leave the hospital in a certain number of days, and that if any complications arise, it is the hospital's fault and the hospital should stand the extra hospital care.

"The foregoing opinion has been based on the assumption that because of the physician's error in diagnosis, the hospital did not know Patient A had a contagious disease and therefore instituted no precautions. I have intentionally taken this matter in its worst aspect, because if the hospital had exercised the ordinary quarantine procedure, it would never have considered the question of remitting charges.

If the physician knowingly sent in Patient A he should be barred from sending in any other patients in the future, but, because of the above reasoning, I do not feel that even in his case, should he be asked to pay for the extra expense."

Desultory studies are erased from the mind as easily as pencil marks; classified studies are retained like durable ink.—Cooper.

NURSING AND THE HOSPITAL

Conducted by CAROLYN E. GRAY, R.N.,
Department of Nursing Education, College for Women,
Western Reserve University, Cleveland, Ohio

COOPERATIVE PUBLICITY

IN discussing the subject of publicity for schools of nursing in the preceding issue it was stated that letters had been sent to principals of schools of nursing in various parts of the country, whose success in attracting students has been outstanding, in an attempt to find out the reason for their success.

Their replies are here published, the first a contribution from a well-known school in the Middle West. It is interesting to note that the experience of this principal agrees in all salient points with that of her colleague in New England. The second contribution is from one of the first schools of nursing to be definitely connected with a university, and the pertinent question at the end of this paper is worthy of thoughtful consideration. The third article is from a university school in the West. Thus are furnished two contributions from university schools, and one from a school not connected with a university. If obliged to sum up all that is outlined in these papers in three words, they would be, *education and fair play.*

School in Middle West

As a large number, if not most of the young women in this Middle Western school, have come through the direct or indirect influence of the graduates of the school, it would seem that the main reason why applicants are now attracted is because in the past the school has met the approval of those who have spent time in it, who know its conditions and are willing to recommend their friends to enter.

Since early organization in 1903, it has been the endeavor of those responsible to make it manifest to the young nurse that she would find a continuation of the treatment she had been accustomed to in the private school or the college from which she came, and while the conditions of the life and the many problems of a busy hospital not always have allowed the intention to be carried out, the evident desire has been accepted by the students and they have been happy and satisfied under conditions which, as in all other hospitals, are not ideal.

Second only to meeting the expectations of the student body, is the need of satisfying parents that their daughters will not be overworked; that they will be carefully supervised; that their health will be safeguarded; and that the general surroundings are such as will properly develop those they hand over to the care of the school.

Inducements to Enrollment

After careful observation and study of the parents and daughters upon whose interest and approval depend the nursing care of the hospitals of the country, it appears that the following features seem particularly to appeal:

The preliminary six months' period during which time the student nurse has short daily hospital duty with intensive classroom work, allowing a gradual familiarity with hospital conditions; at the expiration of the preliminary period, the eight-hour duty, night as well as day, with the customary weekly half-days; an atmosphere in the nurses' home which strikingly impresses the newcomer and her parents with a feeling of welcome and of thoughtfulness for her and for her general welfare, this impression not fading as novelty disappears, but continuing to be felt by the young woman throughout her period of training; provision made by the medical staff for systematic supervision and care of the health of the student by its members, with the presence in the home of a graduate nurse whose exclusive time is given to the care of the student's health.

In considering the needs of the school, early recognition was made of the fact that the modern woman demands education and proper preparation for the work she selects, it being also conceded that she who chooses nursing is in all essentials *a young woman of her time.*

To secure the necessary education and other conditions of successful organization, the vital interest and active assistance of the medical staff, the support of a strong board of management, the influence and help of an auxiliary board of wide-awake women, and a carefully selected nursing personnel, were concentrated on studying those features which had been tried out and approved by recognized schools of nursing in this country. Naturally, to the medical staff fell the responsibility of medical instruction and, through close affiliation with the medical school of a university the necessary elementary sciences were provided for, classroom instruction of a uniform order was assured and has been maintained.

The board of management has allowed a sufficient number of graduate nurses to instruct and supervise properly, also necessary dietitians, a corps of orderlies, maids, and ward helpers to carry routine hospital non-nursing duties, and graduate, rather than student, nurses for special duty nursing. It has also provided a properly equipped home for its nurses, placing in the home not only class, lecture and recreation rooms, but also dining rooms and kitchen with the housekeeping personnel to carry an establishment designed for the care of a group whose needs combine those of the manual worker and of the student.

The Woman's Auxiliary Board has done many of the various and unclassifiable things which only the right kind of women who are really interested can do, and which mean so much in bringing opportunity and happiness to the student body. They have not tied themselves down to specific responsibilities but have responded to calls both numerous and diverse in character, and this possibly has made their assistance more valuable. Selecting furniture for the home; assisting in the choice of school uniform and pin; aiding class room work by gifts of microscopes, reference books and other equipment; bringing about the student nurse's desire for the installment of a branch of the National Student Y. W. C. A.; suggesting, arranging for, and partially financing a well-conducted choral organization; and giving financial assistance to students unable

to carry themselves through the period of training, represent a few of their contributions.

The graduate nurse personnel not being "sweated" as a recent prominent visitor to this country remarked about an American hospital which he visited, the effect of overwork and discouragement, first manifesting itself in the graduate body and then spreading to the student nurses, has not been in evidence, but a spirit of loyalty has grown up which can only be found among those who are fully, interestingly, but not exhaustively, occupied. The fact that physical effort has been reasonably limited has made it possible for the graduate staff to study the needs of the student nurses in classes, in practical work, and when free for rest and recreation.

For this reason also it has been possible to study other nursing schools, to find what seems best in each and to adopt what appears desirable so that there has been no standing still, but each year new, worthwhile things, either original with this school or copied from others, have been added. Sometimes, due to the cooperation of the medical staff and of the lecturers, it has been an improved, or an additional course of lectures; again an affiliation with an institution or a school bringing broader theoretical or practical opportunities; or it may have been yielding to the tendency of the day to grant credit in time to college women; or adoption of a pleasing form of recreation; or a closer supervision for health's sake of methods of spending annual vacations. It has always been *something*, and that something of a nature to interest and help the young nurse to go out better prepared for future work than her predecessor.

Summed up, what is required in my judgment to bring applicants to our nursing schools, and what has brought them to this school are cooperation and understanding,—cooperation on the part of the superintendent of the hospital and his assistants; the interest and helpfulness of the medical staff; support and confidence of managing boards and of the local public; so that all, including the student nurse and her parent, may realize that a generous policy of thought is necessary and is given with ample consideration for the educational, physical and moral welfare of the young woman in return for the years of service she gives to the hospital.

Thirteen years ago the University of ———— established a school of nursing, the entrance requirements being graduation from an accredited high school, and a preliminary course of four months in the university, taken at the student's expense, during which course the student was not on duty in the hospital.

Until the spring of 1920 we had enough students to meet the needs of the hospital, and yet were able to reject students who did not carry their preliminary and probationary work in a satisfactory manner.

Our records show:

1918-19	35	entered	university—27	entered	hospital
1919-1920	23	entered	university—20	entered	hospital
1920	15	entered	university—10	entered	hospital

In 1918 four dropped out on account of illness, three were dropped for poor work and one withdrew.

In 1919 three were dropped for poor work in the university and three for unfitness shown during the probation period in the hospital.

In December 1920 five were dropped for poor work in the university.

We have not accepted any student under twenty years of age.

The university is trying to meet the need for additional students not by lowering its standards, either of education or age, but by making it possible for a student to enter the school with less expenditure of money.

The board of regents has agreed to provide board and room during the three months of the preliminary term when the students are not on duty in the hospital. They live in the nurses' home during the second three months and are on duty in the wards four to five hours daily. The fees to the university are paid by the student.

The course under the new plan was offered for the first time in the spring quarter, beginning in April, 1921.

As a result of stating this change of policy to those who made inquiry after the change was authorized, we had an increased number of applicants even before a general public announcement of the change of policy was made.

Schools that provide enough well-given theory to make the practical work interesting, well-equipped graduate supervisors able to teach the nursing subjects, variety of services and rotation in these services, so that nurses are given a well-balanced practical training, comfortable living quarters and the same freedom that is allowed to other young women of the same age in colleges, will attract educated young women and hold them. It should be unnecessary to say that the hospitals whose nursing service is supplied by schools of this type are able to give to their patients the very best care.

If the present problems in our nursing schools arouse enough interest in those responsible, to make them really

WHAT A NURSES' TRAINING SCHOOL STANDS FOR*

To what does a diploma from a good training school for nurses testify?

The diploma does, presumably, testify to three years of practical experience in caring for the sick and three years' study of the art and science of nursing.

The diploma does not guarantee those qualities of mind and heart which are refined by contact with suffering to something like pure gold. The diploma does, however, testify to a courage that does not flinch, or quail, or run away from certain diseases which some men fear more than they would fear machine guns.

The diploma of a good training school does testify to certain womanly qualities that are welcome in a sick room. The young woman who wants to be a nurse for the work's sake must have qualities that would honor a most desirable home of her own. The girl who will not run away from pneumonia, or diphtheria, or tuberculosis, or any more active infectious sickness, when it is her job to fight the good fight, must have qualities that would honor any vocation or any position in life.

That kind of courage is not the only quality that makes the kind of nurse we most love and honor. There is a moral courage which does not hesitate to report an error of its own. It may take more courage to confess a mistake than to stand by a dreaded disease to the finish. There are men who find it harder to confess a fault than to face a cannon. We hope we can claim that a diploma from this training school stands for moral qualities that will forget self to obey the call of the higher ideals of nursing.

*Brief address to nurses' graduating class at City Hospital, Worcester, Mass., on December 15, 1922, by Dr. Charles A. Drew, superintendent.

search for the solution, and stimulates them to take the necessary steps to put the schools on an educational basis, even though it takes money, the writer will not regard our difficulties as deplorable.

All classes of society in every community should be made to feel their responsibility for keeping our schools of nursing filled with the right kind of students. Surely all classes in the community need the services of nurses and all should help to provide an adequate supply.

If nursing schools were put upon the same plane as other educational institutions, we should see more daughters of the members of the medical profession and of the educated, cultivated, well-to-do members of our communities enter our schools.

The greatest handicap under which our schools are laboring today is not the lack of students, but the lack of well-equipped women as heads of schools and as assistants, teachers and supervisors. Will the lowering of educational requirements, reducing the age requirement to 17 and 18 years, shortening of the time, (if it means reducing the amount of nursing education given) tend to overcome this lack in the future? Is not our present condition largely due to the low standards, or lack of standards in the past?

University School in West

Our one outstanding method is advertising, both direct and indirect. By direct, is meant getting bulletins into the hands of young women who might as well be interested in nursing as in some other profession, and into the hands of such persons as are constantly giving informal vocational guidance to girls, and also by means of occasional reports of our activities in other publications. The indirect method includes everything else that we have done to make our students good nurses, happy and enthusiastic, so that they will advise their friends to take training with us.

We have never lowered our entrance requirement of a complete high school education.

A combined college and nursing course not only brings us many college women who are taking the five-year course, but many others who have had some college work or a complete college course with a major other than hygiene.

We have given the nurses the best course of instruction available, using the facilities of the medical school in many instances. Nursing books and magazines have been made a part of the medical school library and a small fiction library and fiction magazines have been placed in the nurses' residence.

The Alumnae Association is encouraged to meet in the nurses' residence and keep in close touch with the student body.

Our state law requires that student nurses work only forty-eight hours a week. Each nurse has one day each week from duty, though classes must be attended. Some of the work formerly done by students is now handled by orderlies and ward maids. We try to make the work of the nurse always training, never exploitation.

The standing committee of the school of nursing includes the head of the hygiene department and the dean of women of the university, the director of hospitals, a representative from the medical and surgical staffs of the medical school and hospitals, and five members of the nursing staff. Frequently, this group calls in others to help in formulating policies. This committee not only decides matters of policy, but handles any serious matters of discipline. Students-nurses seem to feel this a more just and impersonal method than when it was left to the administrative staff.

The health of the student-nurse is very carefully supervised by a regular infirmary staff.

A loan fund has been established for students in training.

Our nurses' residence is new and comfortable. It includes a recreation hall which is in constant use. We have a recreation supervisor who gave the students physical education, coached games, planned hikes and picnics with them and helped with parties. Food is sent from the hospital for the hikes, picnics and parties and is also furnished for evening lunches.

The nurses are encouraged to have interests outside of their work and their studies. Just at present the senior class is hard at work getting out the first "annual" of the school.

A self-government organization deals with the lives of the students when off duty. The students themselves impose the penalties for infringement of rules. In case of serious misconduct only, does the executive committee refer a student to the nursing committee for discipline. Just once in the three years we have had self-government has a student been so referred. In that case the executive committee recommended her dismissal and the nursing committee, after reviewing the case, acted on this recommendation. The students as well as the faculty are satisfied with student control and have no wish to return to the old system.

We have a very strong student Y. W. C. A. Though only about eighteen months old it already has a membership of 90 per cent of the student body. This organization has a program including religious, social, educational and physical activities. The "Big Sister" committee gets the names of all girls who are coming into training, writes to them, meets them at the train if they so wish, and makes them feel a little less strange as they come into their new work.

There is another side to this picture which in all fairness we ought to face. Almost everyone, who is conversant with the conditions in schools of nursing and the hospitals with which they are connected, knows how widely they vary, and knows of policies, pursued in some schools that are so short-sighted as to be almost suicidal, but a wider and more intimate knowledge of schools and nurses has impressed us with two distinct failures that are very striking, and, while limited to a small number of schools, reflect discredit on all.

Conserving the Health of Students

First is the failure to conserve the health of the student nurses. There is overwhelming testimony that some schools fail in this respect, and the price paid is the bitterest kind of criticism from all the friends, neighbors and acquaintances of the student who suffers a serious breakdown. There is general agreement that in cases of serious and acute illness student nurses are well cared for, and the highest type of medical and surgical skill is generously contributed by the attending staff of the hospital. But there also is general agreement that in some schools the doctrine of spartan endurance is taught so effectively that early symptoms which ought to serve as danger signals are ignored and the opportunity for preventive treatment is lost, with the consequence that many conditions are far advanced and consequently harder to treat by the time they are diagnosed.

Especially is this true in regard to the symptoms of tuberculosis in the incipient stage. Granted that these are elusive and not readily recognized, this makes it *more*, rather than *less* necessary that all the advances of modern science should be brought to bear in order to make the

diagnosis as early as possible. Yet anyone who knows the various sanatoriums for tuberculosis knows that there is always a fairly large number of nurses among the patients, and too many of them are students who have broken down during training, or just after completing training. The staggering fact is that these cases, are, all too often, far advanced, instead of having been sent for treatment earlier. This ought not to be. If the physical examination at entrance serves any purpose at all, and if reasonable safeguards are thrown around the student nurse, and reasonable precautions taken, it ought to be possible to lessen the incidence of such tragedies. The price paid by the victim is a heavy one, but even greater is the price paid by the community, because one such case deters—who can say how many other young women—from entering nursing schools. It is hard to convince parents who know of such instances that in good schools of nursing where proper precautions are taken young women are really safer than they would be in any other kind of school. Then too, the public does not discriminate and is apt to think that what happens in one school is likely to happen in all schools, and the resulting criticism affects the best as well as the poorest schools in our midst.

Our schools should profit by the work of nutrition experts during the last few years. Why not have in every school, a *class* for undernourished nurses, students and graduates? Such a class would be of double value. It would form a splendid demonstration of health teaching and positive health, while bringing nurses up to standard physically. Just as in some schools, no child can graduate, who has not had all removable defects corrected, so here no student should advance from class to class, from service to service, without showing a clean bill of health.

Instead of making the young nurse, who is forced to have tonsils removed after frequent attacks of tonsillitis feel that she is an offender, enthuse a little of the same spirit into her that the school nurse uses to inspire her charges. Health classes for nurses in training, with positive health information directed toward the building up of proper health habits, would eliminate the tragedy and disgrace of the removal to a tuberculosis sanatorium of a student nurse about to graduate from a three years' course. From the standpoint of constructive publicity alone, our hospital training schools should take pride in graduating young women who are perfect exponents of health and the value of health teaching.

Misleading Advertisements

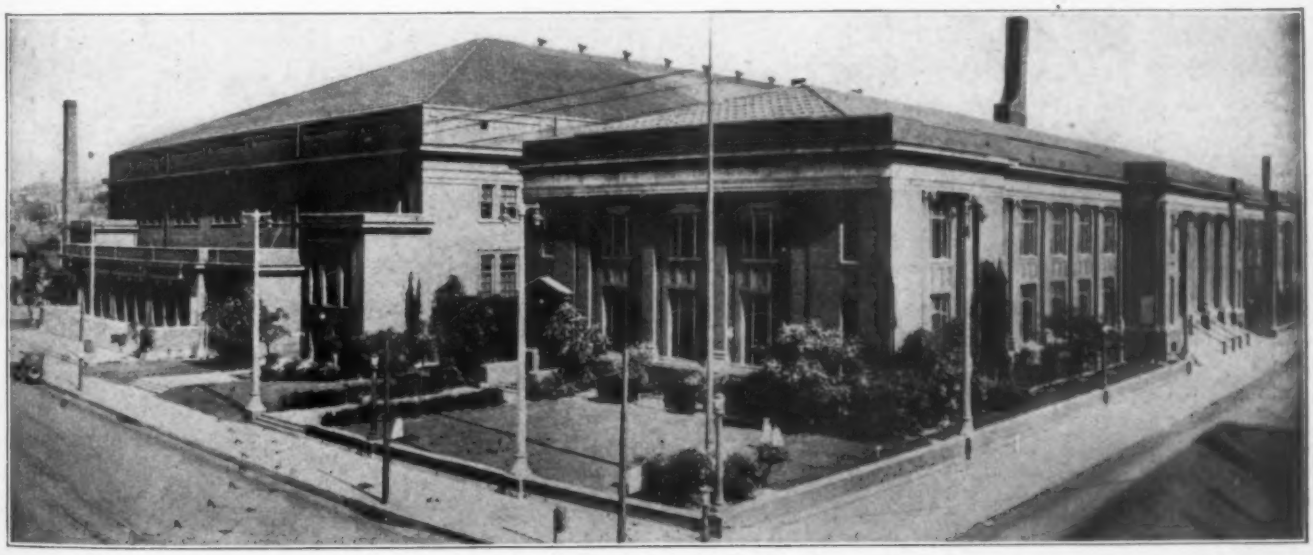
The second failure is in connection with some of our present methods of advertising. It is difficult to put into words the feelings aroused by some of the forms of advertising that schools of nursing are practicing today. One wonders whether in a desire to break away from our former conservatism, the pendulum has not swung too far, and resulted in a failure to carry over ethical principles into this new field.

A study of the circulars of schools of nursing furnishes many surprises. Presumably the purpose of such circulars is to furnish information regarding the educational opportunities offered the students. Yet it is not unusual to find the description of classwork and hospital services crowded into very small compass, in order to make room for descriptions of recreational opportunities, dances, etc. Some circulars suggest the advertising done by summer hotels, rather than the catalogues of colleges. Whether this is right is a pertinent question. With which group do we propose to align our schools, those whose advertisements are misleading, or those whose advertising is as honest and straightforward as it is possible to make it. In any event, is it not true, that advertising is only a temporary expedient, and really means a waste of money, unless hand in hand with it we strive to make our schools so good that they will attract students on their own merits?

After all, our efforts are not to secure a large class for one or two years *only*, but rather to develop an intelligent and sympathetic public opinion toward the problems of the hospitals and schools of nursing. Will misleading advertisements do this?

"The art of fine living consists of the greatest intellectual development and the most worthy social service possible, without loss of power to continue the race adequately, to enjoy life fully and to be a real source of happiness to others."—Dr. J. F. Williams.

WHERE AMERICAN HOSPITAL ASSOCIATION WILL CONVENE NEXT OCTOBER



The Milwaukee Auditorium, at Milwaukee, Wis., where the twenty-fifth annual conference of the American Hospital Association will be held, is one of the largest and most conveniently arranged auditoriums in the country. It provides facilities for large mass meetings and for small session conferences as well. The convention will be held the week of October 29.

DIETETICS AND INSTITUTIONAL FOOD SERVICE

Conducted by LULU G. GRAVES,
Supervising Dietitian, Mt. Sinai Hospital, New York.

DIET IN INSTITUTIONAL CONVALESCENCE

BY PAULINE G. KIRSCHENBAUM, DIETITIAN, THE BURKE FOUNDATION, WHITE PLAINS, N. Y.

THE following study is based upon the care of 35,000 patients of nearly all diagnoses and races, over a period of seven years. Group convalescent feeding presents many special problems in dietetics because these persons as received are nearly all neurotic in varying degree, they come directly from the stage of much food particularizing and pampering, food-fears and prohibitions and invalid habits are intrenched and being carried too far into the recuperative stage, laxatives and other gastro-intestinal medications have been used frequently for weeks previously, the racial, family and other diet peculiarities have become more firmly fixed; and yet good convalescent-therapy (which is at its best preponderantly mental, habit and courage therapy) depends upon normalizing and re-socializing in the quickest way.

Dietary normalizing is a main element in this composite of sound convalescent procedure. "I can eat regular food and I can walk," summarizes the standard expressions that indicate the turn to health. It proves in practice difficult to correct the various psychoneurotic border states of these patients until saner diet attitudes and practices are attained.

The Burke Foundation took from the outset a firm and somewhat radical position on this phase of the reconstructive effort. Criticisms, outside and in, and withdrawals, were prevalent at first. At the end of a year our "food troubles" (medical, neurotic, racial, religious, etc.) were over. Most new arrivals yet express or feel disappointment and doubt in their first experience of the "simple low meat, egg and milk" meals; but the understanding that it has all been broadly and scientifically considered and will not be changed, and that their predecessors speak so well of it soon wins them to cooperation and to well-nigh uniform enthusiasm finally.

Preceding the further detailed discussion there may best be presented the general study and precise calculations of this convalescent home's regular diet, as made by Miss Margaret R. Sandels of Columbia University (under the F. K. Sturgis Research Fund), with complementary data generously loaned by an outside source.

Diet of the Burke Foundation

(Report for one week)

The data compiled here were submitted by the Burke Foundation as a complete record of food eaten by patients and employes during a period of seven consecutive days from February 13 to February 19, 1922, inclusive. The same menus were served to these two groups.

The diet of the Burke Foundation is planned to meet the needs of persons convalescent after illnesses of various kinds, in the attempt to bridge the gap between the close supervision of the hospital and the unsupervised choice of the home. The diet furnished, it is believed, should be liberal in its content of calories, mineral elements, and vitamins, and should contain protein adequate in kind and amount; it should be easily digested, and mildly laxative. All this must be offered in meals which will be normal in appearance, and which will give satisfaction to persons of varying races, ailments, ages, tastes and home environments.

The menus seem, in the main, to meet these conditions successfully. There are relatively few "made" dishes, and unusual combinations and seasonings have been avoided. The general simplicity makes the meals acceptable to a greater variety of persons, aside from the value in promoting easy digestion.

Most of the desserts consist of simple puddings or of fruit. The cake used is not overly rich or heavily iced. It should be remembered, however, that the texture of a loaf cake makes it less easy of digestion than would be the same materials made up into crisp cookies requiring more thorough mastication.

Concessions to the popular taste have been made in the serving of pie occasionally, and in the regular use of tea and coffee. It is interesting to note that the latter have, in their preparation, been made carriers of considerable amounts of milk. At least one warm dish is desirable at each meal. The thick bean soup used at supper is an excellent example of such a dish, being generally well-liked and offering considerable nourishment in easily digested form. It possesses distinct advantages over the cheese and potato salad substituted for it in the "cold supper" on Sunday night.

Calculations for the diet have been made by the method of A. R. Rose as reported in THE MODERN HOSPITAL, Vol. 14, No. 6, 1920, under the title of "Abridged Dietary Calculations of Rations in Quantity." A few items which do not fit into this scheme were calculated separately, from figures obtained from Bulletin 28 of the Department of Agriculture. These items were (1) cooked spinach, (2) tomato puree (calculated as tomato soup), (3) tomato catsup, (4) apple pie.

The census of patients has been estimated in the following manner. On the assumption that the employes, at moderate activity, would consume a larger amount of food per capita than would the average patient, it seemed ad-

visable to weight the number of employes, counting each employe as equivalent, in terms of food eaten, to 1.25 patients. This seemed a conservative estimate. Using these figures, 90 employes per day would be equivalent to 90x1.25 or 112.5 patients per day. For seven days this would amount to 7x112.5 or 787.5 patients. Adding this latter figure to the census of patients, we may say that the food was divided among a company of persons roughly equivalent to 2726.5 patients. The figures will be found in Table I.

TABLE I. CENSUS OF PERSONS CONSUMING DIET.

	Patients	Employes (90)x1.25
Monday	269	112.5
Tuesday	279	112.5
Wednesday	276	112.5
Thursday	278	112.5
Friday	277	112.5
Saturday	280	112.5
Sunday	280	112.5
Totals	1939	787.5
Grand total of persons, expressed as patients		2726.5

The calculations for the diet as a whole, and the allowance per patient are given in the accompanying tables. Table II presents totals. Detailed calculations will be furnished on request.

TABLE II. TOTAL CALORIES, PROTEIN AND FAT FURNISHED BY THE DIET.

Name of Class	Total Calories	Protein Calories	Fat Calories
I. Cereals and cereal products	2,825,938	356,308	266,829
II. Dried legumes	279,660	70,800	12,390
III. Vegetables and fruits	1,686,323	167,371	.....
IV. Sugar, syrups, etc.	1,256,625	.....	.....
V. Fats and oils	1,373,750	.....	1,373,750
VI. Foods rich in fat and protein	1,079,348	202,290	551,120
VII. Animal foods exclusive of whole milk and fats	710,364	268,620	420,350
Totals	9,212,008	1,065,389	2,623,439
Per patient	3,378.5		
Percentage distribution of calories		11.57%	28.50%

The calories are furnished generously, and the distribution of these among the different foodstuffs is within normal limits. The protein furnishes 11.57 per cent of the total calories, or almost 98 grams per patient per day. Of this 44.2 per cent comes from animal sources. The fat gives 28.50 per cent of the calories, quite enough for palatability, not too high to be consistent with a normal rate of digestion.

No attempt has been made to study in detail the return of the diet in mineral elements, because it has seemed more practicable to estimate the adequacy of the diet through a study of the foods which may be expected to safeguard the diet in this respect. As regards *vitamins, our knowledge is still too incomplete* to warrant any attempt to speak in quantitative terms, and all we can do is to see that the foods known to be good sources of the three vitamins be given sufficient prominence in the diet.

A simple method for estimating the value of the diet as a whole is that of grouping the food materials used into certain related classes, and finding the relative prominence of each type. The nutritional significance of these groupings is summarized by Sherman and Smith*:

I. Grain products—economical sources of energy and protein but not satisfactory in their mineral and vitamin content.

II. Sugars and fats—chiefly significant from the nutritional standpoint as supplementary sources of energy, although some animal fats are important sources of vitamin A.

III. Meats—including fish and poultry—rich in protein or fat or both, but, in general, showing the same mineral and vitamin deficiencies as do the grains.

IV. Fruits and vegetables—varying greatly in their protein and energy values but very important as sources of mineral elements and vitamins.

V. Milk—important as a source of energy, protein, mineral elements and vitamins, and possessing unique efficiency as a growth-promoting food.

From this summary we see that *as milk, vegetables, and fruits are made more prominent, we tend to safeguard the diet in respect to its mineral and vitamin content;* that meats and grains alike need supplementing in regard to their mineral and vitamin content; and that sugars and pure fats are typical examples of one-sided foods.

Rigid economy may cause undue emphasis to be put upon cereal products, while the fondness of the average American for the flavors of sugars, fats, and meats may lead to a disproportionate use of one or another of these.

Classifying the present diet in approximately these groupings we find the distribution to be as given in Table III.

TABLE III. DISTRIBUTION OF CALORIES AMONG GROUPS OF FOOD MATERIALS.

Name of Class	% of Total Calories
I. Cereals and cereal products	30.68
II. Dried legumes	3.04
III. Vegetables and fruits	18.36
IV. Sugars, sirups, etc.	13.64
V. Fats and oils	14.91
VI. Milk (exclusive of cream and cheese)	11.72
VII. Animal foods (exclusive of milk and fats)	7.71

The proportion of cereals is conservative; 25 per cent—50 per cent of the diet may come from cereals, but with the higher proportion it becomes difficult to make the diet palatable, and to furnish minerals and vitamins in adequate amount.

The proportion of meat is commendably low.

The three per cent of legumes used is probably as much as can be made acceptable in the diet, if we judge from experience with army rations.

The percentage of fruits and vegetables is very good. It has been recommended that at least 15 per cent of the total calories shall come from this group, and in the present instance we have 18.36 per cent, exclusive of the dried legumes.

The amount of sugar might be reduced slightly, as more than 10 per cent of the calories from this source may tend to unbalance the diet.

Market List†

(Burke Foundation Diet for One Week)

Cereals and cereal products			Raisins	5	lbs.
Barley	5	lbs.	Spinach, cooked	120	"
Bread	1183	"	String beans	39	"
Cake	220	"	Tomatoes	234	"
Flour	12.5	"	*Sugars, sirups, and starches*		
Hominy	42	"	Karo	70	"
Muffins, corn	173	"	Molasses	9.5	"
Muffins, wheat	86	"	Sugar	614.5	"
Noodles	15	"	Tapioca	24	"
Oatmeal	56	"	*Fats and oils*		
Pie, apple	118	"	Butter	249	"
Rice	10	"	Cream	5	qts.
Rolls	265	"	Mayonnaise	6	"
Spaghetti	39	"	Oil	208.5	lbs.
Dried legumes			Salt pork	31	"
Pea beans	165	"	*Foods rich in fat and protein*		
Split peas	12	"	Chocolate	2	"
Fruits and vegetables			Cocoa	35	"
Beets	213	"	Milk, evaporated	16	"
Cabbage	210	"	Milk, whole	3090	"
Carrots	60	"	*Animal products, exclusive of whole milk and fats*		
Catsup	12.25	"	Beef	100	"
Celery	109	"	Cheese	30	"
Fruit, stewed	625	"	Chicken	200	"
Lettuce	89	"	Corned beef	65	"
Onions	300	"	Eggs	380.5	"
Parsnips	250	"	Fish	75	"
Peaches, canned	63	"	Frankfurters	55	"
Pears, canned	63	"	Gelatin	7	oz.
Peas, canned	262	"	Liver	55	lbs.
Pineapple, canned	59	"	Mutton	40	"
Potatoes	3629	"			

*Sherman and Smith, The Vitamins, p. 207.

†Report submitted by Margaret R. Sandels, Department of Nutrition, Teachers' College, Columbia University.

The quantity of *milk should be considered as somewhat below the optimum*, especially in the diet of convalescents. It is well to bear in mind that milk can make good the deficiencies of a diet to a greater extent than any other one food, and a liberal milk supply is our best single guarantee of an adequate diet.

Taken as a whole, the diet is excellent. The caloric value is high, and the protein is ample without being excessive. Good judgment has been shown in the liberal use of vegetables and fruits, and the milk supply, while not optimum, is above minimum limits. The diet bears witness to the thoughtful care of those responsible for it.

Specimen Menus for Winter

Monday
Breakfast, 7:30 a. m.—Cereal, eggs (men 2, women 1), rolls, coffee.
Dinner, 12:30 p. m.—Frankfurters, cabbage, potatoes, pudding, tea.
Supper, 5 p. m.—Soup, lyonnaise potatoes, lettuce, stewed fruit, cake, cocoa.

Tuesday
Breakfast—Stewed fruit, cereal, egg, corn muffins, coffee.
Dinner—Mutton stew with vegetables, potatoes, pudding, tea.
Supper—Soup, baked beans, celery, canned fruit, cake, cocoa.

Wednesday
Breakfast—Cereal, egg, rolls, coffee.
Dinner—Liver with onion sauce, buttered beets, potatoes, pudding, tea.
Supper—Soup, hashed brown potatoes, sliced onions, stewed fruit, cake, cocoa.

Thursday
Breakfast—Stewed fruit, cereal, egg, corn muffins, coffee.
Dinner—Hamburger steak with parsnips, potatoes, pudding, tea.
Supper—Soup, baked beans, lettuce, canned fruit, cake, cocoa.

Friday
Breakfast—Cereal, egg, rolls, coffee.
Dinner—Fish, stewed tomatoes, potatoes, pie, tea.
Supper—Soup, spaghetti, jardiner salad, stewed fruit, cake, cocoa.

Saturday
Breakfast—Stewed fruit, cereal, egg, corn muffins, coffee.
Dinner—Corned beef with cabbage, potatoes, pudding, tea.
Supper—Baked hash, beet salad, stewed fruit, cake, cocoa.

Sunday
Breakfast—Cereal, egg, rolls, coffee.
Dinner—Fricassee of chicken, dressing, peas, potatoes, ice cream, tea.
Supper—Cheese, potato salad, canned fruit, cake, cocoa.

Milk in cottages at 10 a. m. and at 3 and 7 p. m. to special patients.
Tray service to temporary bed patients, rarely.

Specimen Menus for Summer

Monday
Breakfast—Cereal, eggs, rolls, coffee.
Dinner—Corned beef, cabbage, potatoes, pudding, tea.
Supper—Hashed brown potatoes, salad, stewed fruit, cake, cocoa.

Tuesday
Breakfast—Stewed fruit, cereal, egg, corn muffins, coffee.
Dinner—Mutton stew with vegetables, potatoes, pudding, tea.
Supper—Spaghetti with tomato sauce, cheese, lettuce, canned fruit, cake, cocoa.

Wednesday
Breakfast—Cereal, egg, rolls, coffee.
Dinner—Roast beef, string beans, potatoes, ice cream, tea.
Supper—Lyonnaise potatoes, pepper hash, stewed fruit, cake, cocoa.

Thursday
Breakfast—Stewed fruit, cereal, egg, corn muffins, coffee.
Dinner—Hamburger steak, stewed corn, potatoes, pudding, tea.
Supper—Baked beans, lettuce, canned fruit, cake, cocoa.

Friday
Breakfast—Cereal, egg, rolls, coffee.
Dinner—Fish, potatoes, stewed tomatoes, pudding, tea.
Supper—Hashed brown potatoes, celery, stewed fruit, cake, cocoa.

Saturday
Breakfast—Stewed fruit, cereal, egg, corn muffins, coffee.
Dinner—Frankfurters, new cabbage, potatoes, pudding, tea.
Supper—Hash, lettuce, stewed rhubarb, cake, cocoa.

Sunday
Breakfast—Cereal, egg, bread and butter, coffee.
Dinner—Roast beef, potatoes, peas, ice cream, tea.
Supper—Cheese, potato salad, canned fruit, cake, cocoa.

Average Daily Consumption

The average daily consumption (patients and employes) of meat, butter, eggs and milk, at Burke Foundation during 1921 and 1922.

Meat, fowl and fish	.36 lbs.	per person per day
Eggs	1.41 eggs	per person per day
Milk	.60 qts.	per person per day
Butter	1.40 oz.	per person per day

There is presented, through the courtesy of Miss Alice Ellison, superintendent, the essentially year-round menu of Campbell Cottages, the 85-bed convalescent branch of New York Hospital. Ages range from 1 to 16. Their dietary is the admirable result of 16 years' experience of all kinds of children with every admissible ailment:

Children's Menu at Campbell Cottages

Monday
Breakfast—Cereal and milk, bread and butter, cocoa.
Dinner—Chopped meat, vegetable, potato, bread and butter, tapioca pudding.
Supper—Soup, stewed fruit, bread and butter, cake, cocoa.

Tuesday
Breakfast—Cereal and milk, bread and butter, cocoa.
Dinner—Beans, vegetable, potato, bread and butter, cottage pudding.
Supper—Rice and milk, bread and butter, stewed fruit, cake, cocoa.

Wednesday
Breakfast—Cereal and milk, bread and butter, cocoa.
Dinner—Chopped meat, vegetable, potato, bread and butter, custard pudding.
Supper—Cream of wheat, bread and butter, jam, cake, cocoa.

Thursday
Breakfast—Cereal and milk, bread and butter, cocoa.
Dinner—Pot roast, vegetable, potato, bread and butter, ice cream.
Supper—Soup, bread and butter, stewed fruit, cake, cocoa.

Friday
Breakfast—Cereal and milk, bread and butter, cocoa.
Dinner—Creamed eggs, potato, bread and butter, rice pudding.
Supper—Rice, bread and butter, stewed fruit, cake, cocoa.

Saturday
Breakfast—Cereal and milk, bread and butter, cocoa.
Dinner—Stew, vegetable, potato, bread and butter, corn starch.
Supper—Baked beans, bread and butter, stewed fruit, cake, cocoa.

Sunday
Breakfast—Cereal and milk, bread and butter, cocoa.
Dinner—Chopped meat, vegetable, potato, bread and butter, chocolate pudding.
Supper—Corn flakes, bread and butter, stewed fruit or jam, cake, cocoa.

Milk at 10 a. m., 3 p. m., 8 p. m. Fresh vegetables in season.
Special feeding and diets, as for diabetes, etc.
Eggnogs, 8. o. s.
Children under six have milk at dinner.
Round steak is used for chopped meat and stew.

Methods and Results at the Foundation

Patients in all convalescent homes stay on the average only about three weeks, hence a *standardized weekly menu gives variety enough* to all. With us they walk (wheeled at times) some distance to dining rooms. Bed feeding is rare and is corrected and obviated by a partial starving test. Those saying they cannot eat the food or have no appetite are told to skip one or two meals, and are soon seen at table in hungry and digesting mood. No foods (or drinks or drugs) are allowed from outside sources, with the exception of fruits and candy. Food "grabbers" and gormands are repressed; clean-up of plates is taught; very little is discarded after the meal. (Garbage men have long declined to come for our little end-waste.) The width and flexibility of the menu allow use of the articles that are cheapest in season.

A moderate-sized piece of meat is served on the individual plate and no more may be had, and but two pieces of butter. Table oil is used freely not alone on salads but by the spoonful, where fattening is indicated. "All they want of the main vegetable" dishes and of bread is the keynote. Soups are not well taken in July and August and are discontinued but at other times they are made substantial calory carriers.

Potatoes Are Mainstay in Diet

Baked beans are served as principal dish twice weekly (except in July and August once only), are keenly relished and have, in this balance of diet, given practically no gastro-intestinal disturbances. About six instances of mild food-poisoning of groups has occurred, the faulty foods proving undeterminable as is so often the case. *Potatoes are the mainstay*, prepared in many ways. Syrup is kept on the tables and moderately used especially by the youths. Our farm provides more than one-third of all vegetables; patients help some in tillage and in kitchen preparation. Staff and employes are on essentially this same patients' diet, with slight appropriate graded modifications.

Drinking-milk is not given at table, but in the cottages at 10 a. m. to all, and at 3 p. m. again to some for special nutritional reasons. Milk constipates many, tends ever to get used by those needing it least, unless strictly admin-

istered, and has been "out of scale" here in cost during the past few years. A majority of convalescents have been given the old parrot-wise advice to "go to country and eat milk and eggs," and with many of this class there is good mental and physical therapy in holding to the wholesome everyday feeding as outlined above. More milk percentage is now again being gradually added here, especially for the younger and the seriously depleted, but only upon order and supervision. It is to be remembered in this connection that most of our patients are adult.

Special Dieting Not Practical

Special dieting, as such, is not practiced, and mainly because of the highly restorative anti-psychoneurotic values inherent in the broad dietary single standard. Doctors who were critical at first continue to send increasingly their gastric and intestinal ulcer cases to us (for a total now approaching 1500); the results must have been satisfactory. These patients are judged individually, given extra milk and cotton-seed oil and instructed to "pick and choose" at the table—to starve if need and report when having much gastric trouble. A few leave through food-fear and the obsession for particular or fancy dieting, but nearly all make excellent convalescence, under longer stay than average. This illustrates procedures in a few other classes requiring some modifications at first; e.g., hyperthyroid are somewhat forced-fed. The important mental therapy is accomplished by holding in the main to group cooperation. It is well recognized, however, that a certain field exists for modest special diet convalescent places, yet to be established.

Women consume only two-thirds as much food as men; growing boys even more than the men (in accord with all recent studies). The same food is served to these three classes; but occasionally, as when farm supplies come irregularly, the finer vegetable, e. g., goes to the woman's side. Certain likes of this sort may be catered to, especially in desserts.

Child convalescence has to meet with strong dietary peculiarities and aversions, varying with different localities, races, home influences, etc. Firmness, observation and experience soon work out child diets satisfactory to happiness, health and just economies. Parents give thanks for and are taught by this moulding of their children to simple saner dietaries, which goes quitely on in all convalescent places, and carries on into the homes.

Average *weight gain* at this home has been just under three pounds for men, and somewhat over two pounds for woman (average of stay about 19 days). While some gain in weight is generally a valuable sign of health progress and has pronounced good effect upon the patient's spirit, yet it is *not to be taken as the main index of recuperation.* Vital capacity, posture, weight, courage and mental attitude gains rightly make up the composite for judgment of fitness to resume work-and-play life. A purely fattening process may readily be carried on, of course, but it would not generally be good convalescence. A *considerable number should lose weight* during this period best to accomplish durable reconstructions.

Medical Phases of the Diet

The *correction of constipation* in thousands of cases under this routine has proved most remarkable. How much the other active rejuvenative elements of the regime have contributed to these happy results may not be precisely determined, but evidently in this and other like experiences the diet is at least one main factor. Many evidences of faulty digestion and food stasis also disappear. Laxative and digestive drugs are rarely given and only for pronounced symptoms. Talks on food values and home management are given to patients in assembly at intervals. Many women ask on leaving for menus and details of preparation. Information by letter and otherwise constantly comes back telling of the permanence of these results and expressing *gratefulness for knowledge of the healthier, cheaper diet being in some measure introduced at home.*

Daily Cost from 36-40 Cents

Many of the changes and simplifications in the dietary were made under pressure of forced war-time economies, and were retained when found to work well. Per capita meat consumption was cut 1-3 in 1917 and has since been further reduced to ½ the beginning figures. Early as 1916, a brown "war-bread" was devised made up of left-over bread, cake and cereals plus graham, bran and corn meal added to the wheat-loaf, "as much as it will stand." This proved so good that two loaves of it to one of white bread have been since demanded. The recipe for the "Burke bread" is frequently asked for.

Our daily *per capita food cost,* which rose for a brief war-crest period to seventy cents, is now running between thirty-six and forty cents. In making food cost comparisons of convalescent with other institutions it is to be remembered that the convalescent places feed a much smaller percentage of "help" (only one employe to three or four patients) and that the entire diet is essentially of staff grade, and constantly most generous in quantity to fill the marked depletions of this class of patients. Yet the tendency here is yet toward simplification and lowered costs, without reduction of dietary values, and with most important long-term influences upon the patients and households contacted in the very impressionable convalescent period.

NEWS ITEMS

Miss Sara McInnis has accepted a position at the Mayo Clinic. Miss McInnis was formerly at the Cleveland City Hospital, Cleveland, Ohio.

The Ohio Valley General Hospital at Wheeling, W. Va., was deprived of both its dietitians when Miss Hazel Lease accepted a position at Wesley Memorial Hospital, Atlanta, Ga., and Miss Alice Ferguson opened a tea room in St. Augustine, Fla.

Miss Esther Wright, formerly an assistant at Johns Hopkins has gone to Shreveport Charity Hospital, Shreveport, La., as dietitian.

Miss Lucile Hartman has been appointed second assistant on the staff of the dietary department of the Presbyterian Hospital, New York.

Dietitians have for some time associated Mrs. Agnes O'Dea with the dietary department of Johns Hopkins Hospital, but they must now think of her in connection with the new Fifth Avenue Hospital, New York. Mrs. O'Dea has chosen for her assistants Miss Dorothea Kroncke, University of Wisconsin, who took student training with her and later did some special metabolism work at Johns Hopkins, and Miss Dorothy Jones, Simmons College and Teachers College, who took student dietitian training at Mt. Sinai Hospital, New York.

Miss Bertha Hyde, who has been dietitian at Cincinnati General Hospital for a number of years, has given up her position and gone home for a rest.

Another dietitian who is taking a vacation and renewing acquaintance with her family is Miss Esther Nelson. She has been dietitian at Seaside Hospital, Long Beach, Cal., and her home is in Yankton, S. D.

HOSPITAL EQUIPMENT AND OPERATION

With Special Reference to Laundry, Kitchen and Housekeeping Problems

Conducted by FRANK E. CHAPMAN, Director
Mt. Sinai Hospital, Cleveland, Ohio

"EVERYTHING IN ITS PLACE"*

THE use of steel has been emphasized in both this and the preceding article as the most practical material to use in cabinet construction. There are valid reasons for this emphasis.

In the first place steel is better suited for the purpose. It is stronger and more durable; likewise it is more easily cleaned and kept clean, possessing fewer crevices and cracks for dirt and germs to lodge in. In the second place the manufacture of steel cabinets is more standardized, and thus permits of logical study. Wooden shelving, cupboards and cabinets for storage purposes are frequently built by the individual contractor or the house carpenter to meet the special requirements of each institution. While undoubtedly wood construction can be satisfactorily used in some of the instances enumerated in this series of articles, yet in every case it is safe to say that steel cabinet construction will be found superior in important respects.

Must Consider Length of Service

The cost of permanent and semi-permanent equipment of a hospital must be calculated on the basis of length of service, as well as initial cost. Specially constructed steel cabinets and shelving are obviously higher than similar construction in wood. The increase in use of steel construction, however, naturally has led to partial standardization and, with the broadened use of steel cabinet work, there will be a definite advance in this standardization. Standardization of shelves and storage cabinets does not mean the arbitrary establishment of certain fixed sizes which must be employed in every institution, but rather the adoption of unit sizes which permit the use of any desired multiple of the original units, thus meeting the size and space requirements of virtually every hospital. Architects, hospital consultants and others responsible for planning and designing new institutions are familiar with these unit sizes and plan definite storage space so as to employ stock sizes.

This is particularly well exemplified in the modern clothes locker with which probably every hospital superintendent is familiar. The modern commercial locker is of comparatively recent development and typifies the remarkable progress that has been made in economical and efficient metal working. Such lockers are of standardized construction throughout. It is true that a variety of sizes are available and the lockers may be secured in either single, double or triple tiers, or double and single row construction, yet all of these variations in design and size are part of a definite program of standardized construction which every successful manufacturer follows. The modern locker can be furnished either set up or "K. D.," to be erected on the premises. The sides, doors, backs, tops and shelves are each made independently, yet fit together into a rigid, firmly constructed piece of equipment. Inequali-

*The second article of a series on cabinet construction, the first of which was published in the January issue.

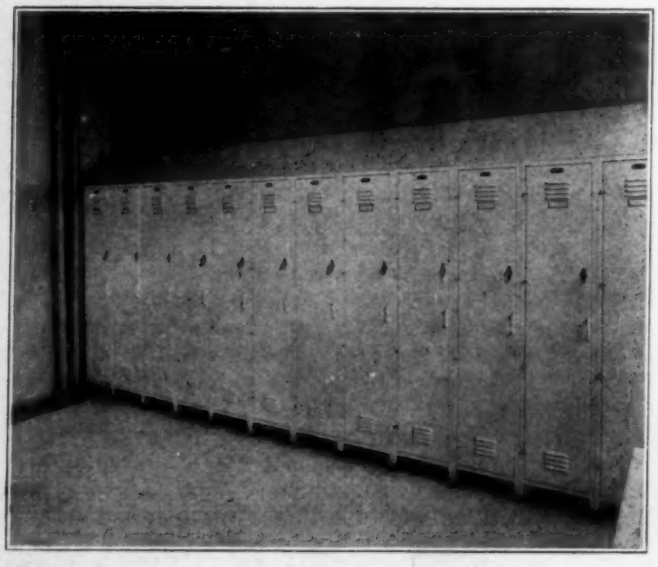


Fig. 1.
Staff locker room, operating pavilion, Cincinnati General Hospital.

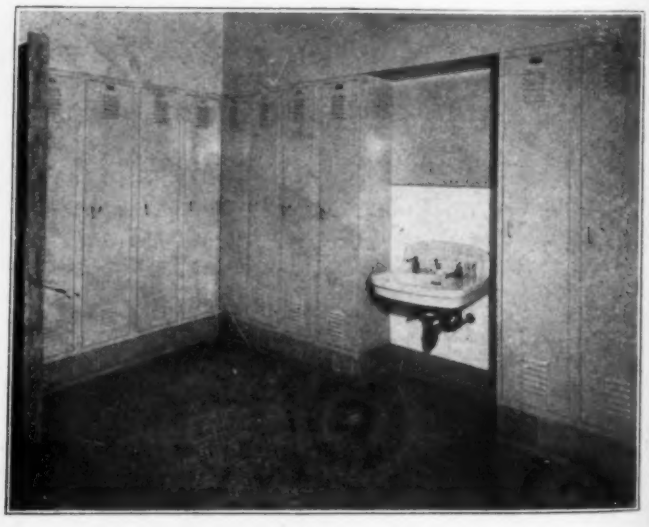


Fig. 2.
Lockers in surgical dressing room, Fifth Avenue Hospital, New York.

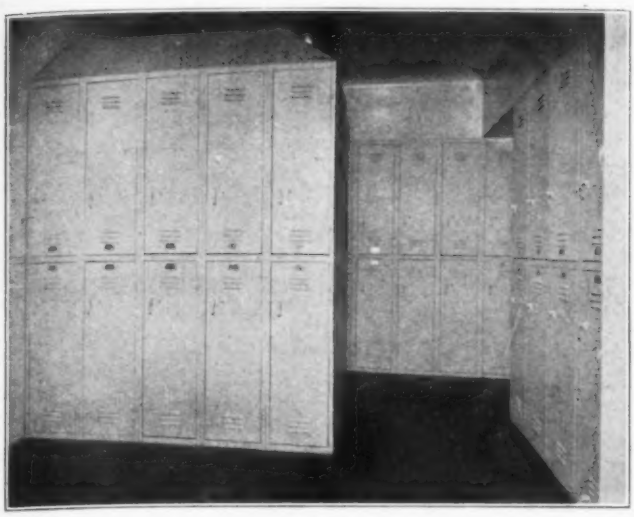


Fig. 3.
Employes' locker room, Fifth Avenue Hospital.

ties in the floor are overcome by adjustable legs. The use of mammoth presses in forming the various parts permits the use of lighter gauge metal in which necessary rigidity and strength are given by angle reinforcements or by the bending and grooving of the sheet steel.

Fig. 4.
Locker wardrobe in private rooms, Fifth Avenue Hospital.

Sectional Locker Wardrobes

No better comparison of the economy that has been secured in steel cabinet construction can be made than through a comparison of the modern sectional locker with the locker wardrobes manufactured by makers of steel hospital furniture. In the latter case the wardrobe is constructed complete and as an individual piece. Without the use of forming presses a heavier gauge steel is, as a rule, employed and this is riveted or welded to the substantial skeleton frame. Because of the far greater amount of labor and the increased cost of material, the hospital furniture manufacturer must ask considerably more for such a wardrobe locker than the price secured by the regular locker manufacturer. Yet, from the standpoint of service, the commercial locker meets the requirements of the institution in every way, and while not equal to the locker wardrobe of the hospital furniture design in point of detailed quality, yet from the standpoint of use and purpose it is fully as satisfactory.

One of the ever-present problems in the hospital is the storage of wearing apparel belonging to patient, staff and general employe. In the more modern institutions the old-fashioned cloakroom is a thing of the past and with the

Fig. 6.
Safe cabinet, Fifth Avenue Hospital.

Fig. 5.
Storage of ward patients' clothes, Cincinnati General Hospital.

installation of modern lockers the wearing apparel of staff and employes is kept more securely and in better condition in individually locked wardrobes.

In Fig. 1, the general type of sectional locker is shown, this being of the single tier type. In Fig. 2 provision has been made for the lockers in the design of the building, and while of the ordinary commercial type they are recessed with cove base extending to the bottom of the locker.

The use of double tier lockers, while naturally limiting the available space in each, permits of considerable economy in floor space. Double tier lockers have been employed in the Fifth Avenue Hospital, New York, for the use of employes living outside the hospital. These lockers represent a permanent installation, partially recessed and with sanitary cove base.

The care of patients' wearing apparel presents a more difficult problem in the general hospital. In the case of private room patients the installation of wardrobes and

lockers solves the question. The types of recessed lockers as employed in the Mount Sinai Hospital, New York, were illustrated in the January article. In the Fifth Avenue Hospital a built-in locker-wardrobe has been installed in the various private rooms.

In the case of ward patients the problem has not yet been satisfactorily solved. In some hospitals combination locker-tables are installed and kept at the bedside of each patient; some keep the patients' clothing in compartment shelves; some, as shown in Fig. 5, put it into a suitable bag or sack and suspend it from properly designed racks. In other institution hangers are provided with covers which when filled are raised to the ceiling by means of pulley and cord.

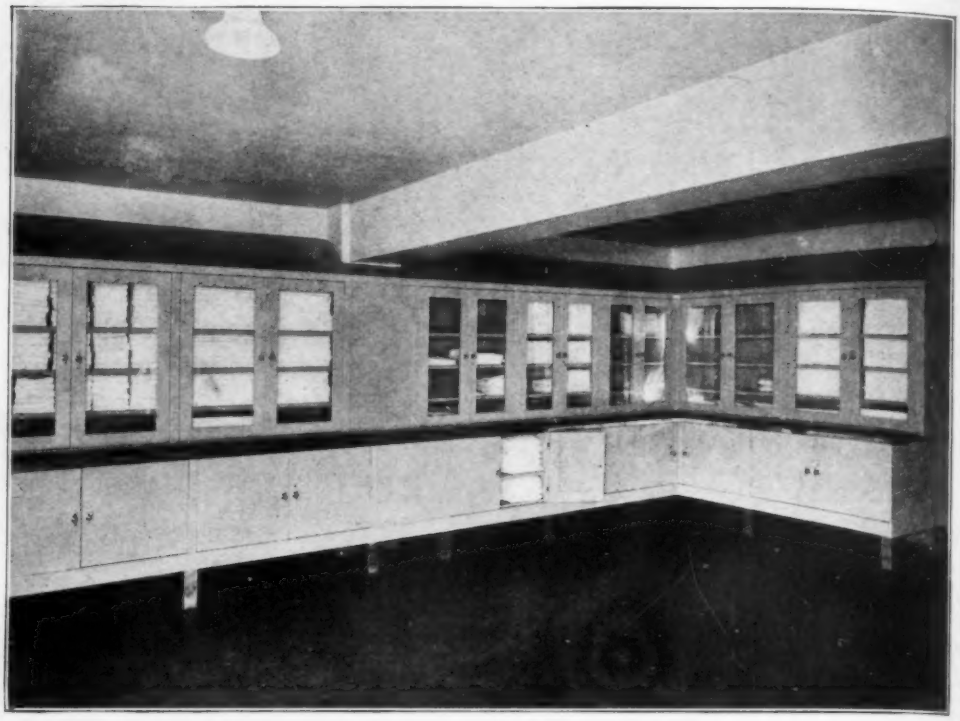


Fig. 7.
Linen storeroom, Henry Ford Hospital, Detroit.

A number of progressive hospital administrators believe that the use of individual lockers represent the solution of this question. Double tier lockers such as shown in Fig. 3 would appear to be suitable for this purpose and should enable wearing apparel and other belongings of ward patients to be securely stored in a clean and sanitary condition and yet be readily available when desired. The fact that these lockers can be locked individually (although masterkeyed as a rule) prevents the loss or misplacement of patients' belongings, which unfortunately sometimes occurs. There promises to be a marked development in this direction in the planning and equipment of projected institutions.

Care of Money and Valuables

Another problem which is frequently encountered is the proper care of money and valuables belonging to patients. While this is ordinarily taken care of by members of the family there are frequently instances where patients, particularly emergency cases, are brought to the hospital with money and jewelry of considerable value. On each floor in the Fifth Avenue hospital is a properly designed safe-cabinet which permits of the temporary storage of patients' valuables, particularly in cases of patients admitted during the night. A main vault has been provided in this hospital in which such valuables are regularly kept. The storage cabinet shown in Fig. 6 also is used for storing necessary supplies of brandy, whisky and opiates. In a number of hospitals the problem of keeping valuables has been met by the installation of what might be termed safe deposit boxes, similar to those employed in bath houses and in safety deposit vaults. In this plan each patient is given an individually locked container.

Fig. 8.
Linen storeroom, Cincinnati General Hospital.

Fig. 9.
A section of a hospital's linen room.

Fine points count in the long run

(The Superintendent and the Surgical Nurse were talking. Series VIII.)

"Well, I have done as you suggested —ordered a new instrument sterilizer for the surgery. It will be here in a week and it has all those things you wanted —foot pedal raises cover and tray at the same time; instruments drain, and it takes only a trip of the pedal to lower."

"Fine, Doctor. There will be joy here now. I only hope it will stay fine."

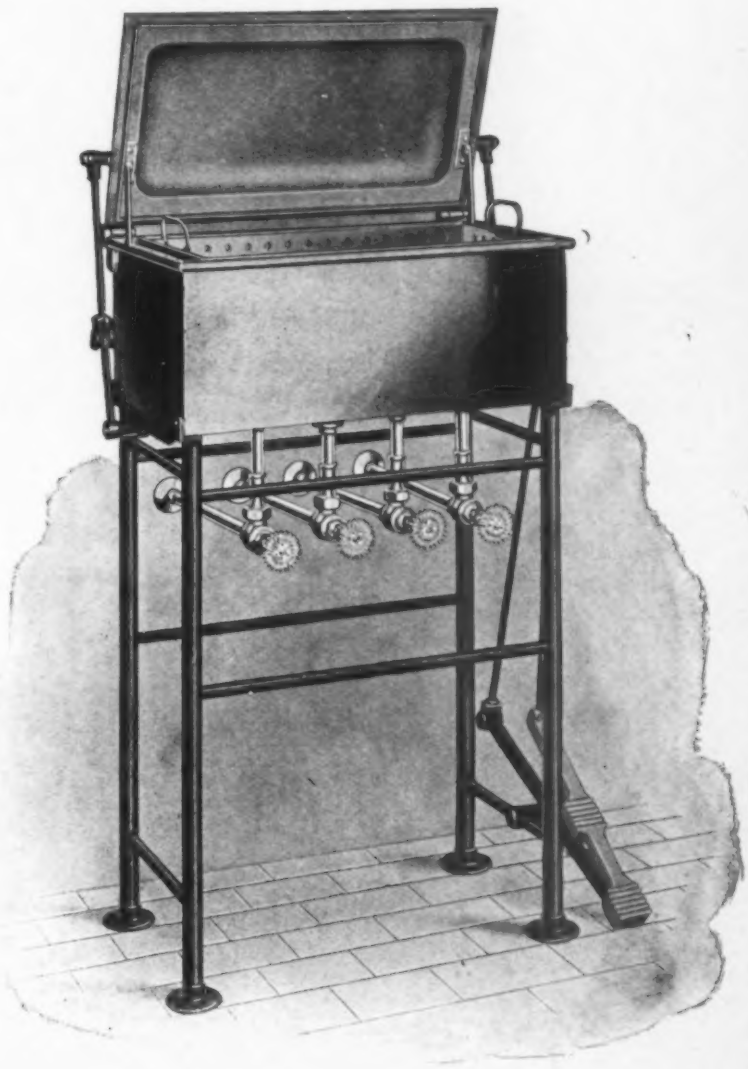
"Yes. It is different from anything I have ever seen—solid and substantial. Weight of the tray is carried at both sides—no racking the cover, you see."

"Before you go, Doctor, how about repainting the Sterilizer room?"

"Yes we shall. The paint will stay on now. There is a vent connection on the new sterilizer—carries off the steam and there is a water filling valve, and a drain with a big screen—keeps sediment from clogging the pipe."

"Who makes this wonderful sterilizer, Doctor?"

"Why it's the Castle, that we've heard so much about recently. They say they build sterilizers that do what is wanted of them and I guess they're truthful and besides, their prices are reasonable."



CASTLE

Send for Castle Sterilizer Specifications

WILMOT CASTLE COMPANY, 1151 University Ave., Rochester, N. Y.

Makers of the largest line of Sterilizers for Hospitals, Laboratories, Physicians and Dentists

Fig. 10.
Food storage room, Henry Ford Hospital, Detroit.

Proper storage of hospital linens is frequently neglected. This neglect arises from the lack of proper storage facilities and from improper organization. Unless proper plans and facilities are provided, it is almost impossible to keep the linen supplies in clean and presentable shape. Under such conditions it is increasingly difficult to maintain proper stock and inventory records. A simple plan of organization, accompanied by ample and properly designed storage facilities, greatly facilitates the handling and care of these important supplies.

One of the most convenient linen storage rooms that has come to our attention is that employed in the Henry Ford Hospital, Detroit, which is shown in Fig. 7. Not only have well designed storage cabinets been installed there, but they are provided with doors, insuring a clean and perfect condition of stock. It is obvious also that the orderly arrangement of these shelves provides a constant incentive towards neatness on the part of employes. It is to be particularly noted that while this installation was not made on a unit basis it naturally divides itself into distinctive units of double-door top and base cupboards. The greater depth of the lower cupboard space provides a work shelf especially convenient in the storing and removing of current supplies. This type of cabinet is particularly recommended for the purpose and is being used in a considerable number of institutions.

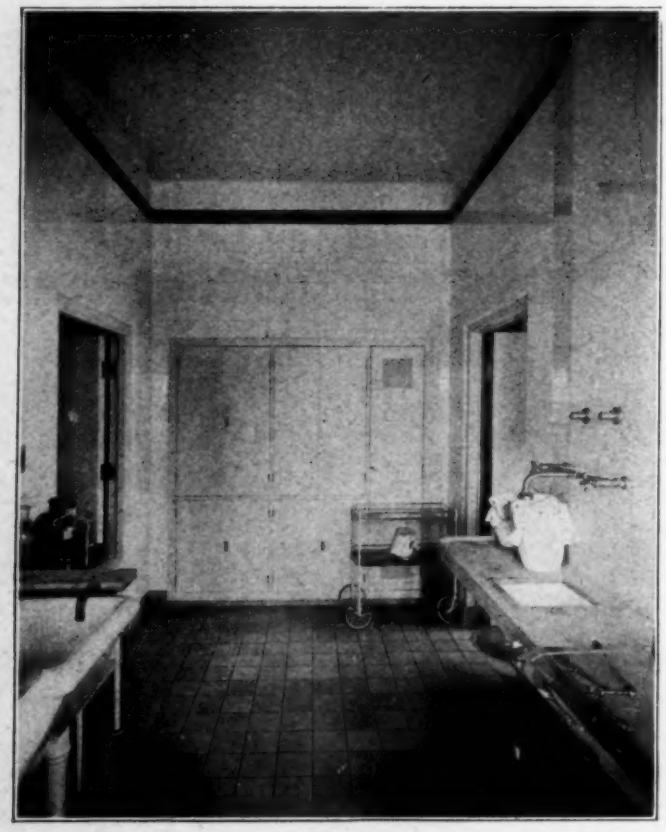


Fig. 11.
Supply closet and blanket warmer, Chicago Lying-In Hospital.

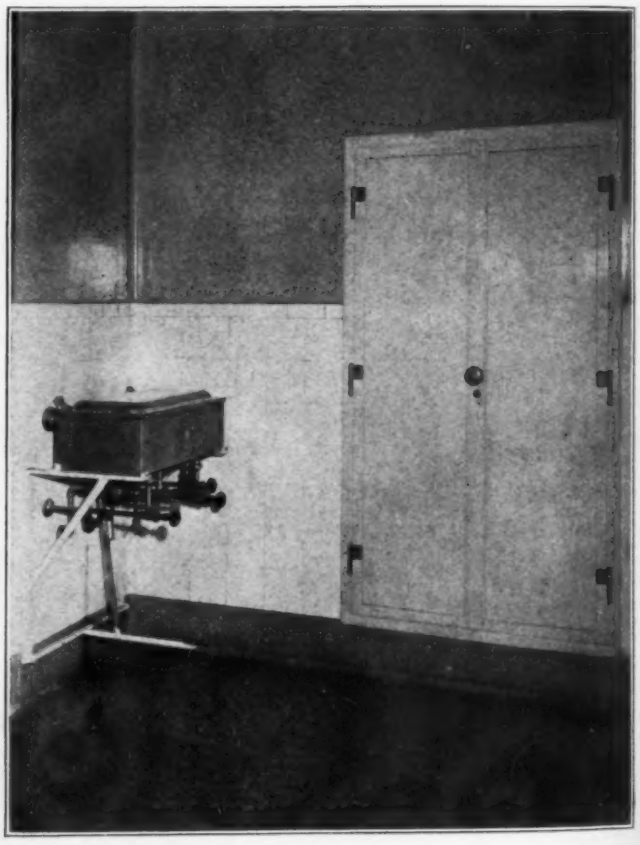


Fig. 12.
Built-in cabinet, utility room, Fifth Avenue Hospital.

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Fig. 13.
Food and supply locker in nurses' work room, Cincinnati General Hospital.

In other hospitals an open type of skeleton shelves is employed. These shelves are made of tubular steel construction and offer the advantage of possibly greater sanitation, as every part of the storage space is directly accessible for cleaning with the minimum number of crevices and corners in which dirt may lodge. A disadvantage is the difficulty of orderly storage. Attention is called to the canvas covers over the top of each stack to prevent dust falling on the various supplies. (Fig. 8.)

A similar type of storage installation is shown in Fig. 9 and is particularly applicable in the larger institutions where great quantities of linen supplies are handled each day.

Food Storage

Storage of foods is an important problem in every hospital, since food supplies must be readily accessible, and kept in a clean, sanitary and orderly condition. Fig 10 shows part of the food storage room at the Henry Ford Hospital. This installation is a combination of bins, drawers, cupboard space and shelving, meeting the requirements of every type of food product or container. Shelves are adjustable so as to accommodate varied quantities and various-sized containers. The tilting bins are particularly convenient; the cupboard space with sliding doors provides for bulk storage. It is interesting again to note that the unit plan of construction, while probably not followed in this particular installation, is readily possible and enables the smaller hospital to purchase sections meeting their individual requirements without going to the expense of specially constructed cabinets. A number of manufacturing houses now make sectional units for similar storage room purposes, meeting every institutional requirement. In some instances these units are sectional in height as well as length, permitting the placing of proper shelf units on the top of cupboard and bin bases, much like sectional bookcases are assembled.

Fig. 14.
Supply cabinet, Cook County Psychopathic Hospital, Chicago.

Surgical dressings and the thousand and one items that are used on every floor of the hospital call for adequate storage space. The range of style and designs of such storage cabinets is naturally great, yet readily permits of certain standardization or sectional construction. Frequently these storage spaces are recessed or built in, provision having thus been made in the original building plan. In Fig. 11 not only are the supply cabinets recessed, but this same unit includes a blanket warmer. This particular installation of supply closets and blanket warmer is located between two delivery rooms in the Chicago Lying-In Hospital; the convenience of this arrangement is obvious. Another type of recessed cabinet is that employed in the utility room of the Fifth Avenue Hospital, New York. This is recessed but is of standard construction.

Fig. 15.
Supply storeroom, Henry Ford Hospital.

The use of stock units is frequently employed to good advantage. In Fig. 13 is shown an installation of three separate cabinets. They are the ordinary commercial type of storage cabinet fitted with adjustable feet and in this instance finished in white

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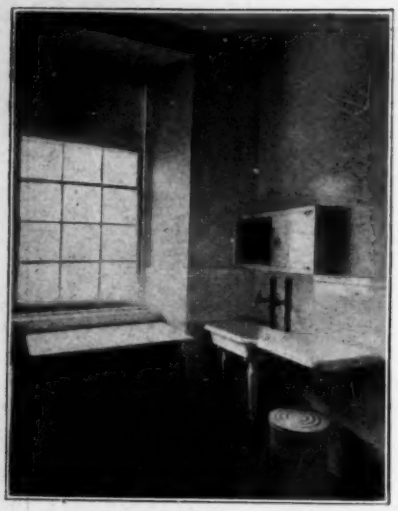

Fig. 16.
Utility room, Mary Imogene Bassett Hospital, Cooperstown, N. Y.

enamel. These cabinets are employed for the storage of surgical dressings, bandages and other supplies.

Frequently these storage cabinets are made with glass doors; this is a very desirable feature, since it insures neatness in storage. They are shown in Fig. 14.

In many of the larger hospitals storage of dressings and similar supplies is standardized at least on each floor. In the Henry Ford Hospital the same general type of cabinet has been employed as is used in linen storage. Both upper and lower cupboard space is provided with glass doors. This is a specially built-in installation, but it is obvious that the design would permit the use of sectional units.

Utility cabinets are not always large, cumbersome affairs. Frequently there is need for compact, conveniently located cabinets for the storage of important supplies. This is well evidenced in Fig. 16.

Cabinet Space in Hospital Pharmacy

The hospital pharmacy has need of specially designed shelving and cabinet space. There are splendid drug cabinets and pharmacy equipment made of wood, but our attention being directed particularly to steel equipment prevents extended consideration of wood cabinets in this article. Two types of recessed and built-in pharmacy and dispensary equipment are shown in Figs. 17 and 18. Both are especially designed to meet space and service requirements in the respective institutions and both provide ample shelf or table room for dispensing purposes.

A preceding article illustrated one type of recessed instrument cabinet. Another style is shown in Fig. 19. These are installed in the corridor walls in close proximity to the operating, sterilizing and service rooms. The photograph well illustrates the advance of recessed construction and the possibilities of this sanitary, convenient arrangement.

Fig. 17.
Pharmacy cabinets, Illinois Central Hospital, Chicago.

Cabinets at Nurses' Stations

In every hospital there is need for ward and floor cabinets at nurses' stations for the storage of drugs, medicinal preparations, dressing supplies, etc. To install such cabinets without interfering with corridor space and at the same time to provide necessary service convenience is always a problem. In later institutions this is accomplished by recessing the cabinet in the wall. This permits of ready accessibility of supplies without utilizing corridor space. The inclusion of water supply and basin in the cabinet shown is of distinct value. As will be noted the glass shelves are adjustable and accommodate any sized container.

It would be impossible to show the many varied types of steel cabinets used in diet kitchens. The convenience of sanitary steel construction with ample and scientifically arranged storage space in diet and service kitchens is readily recognized. There is no need for specially designed cabinets for this purpose, as stock units are

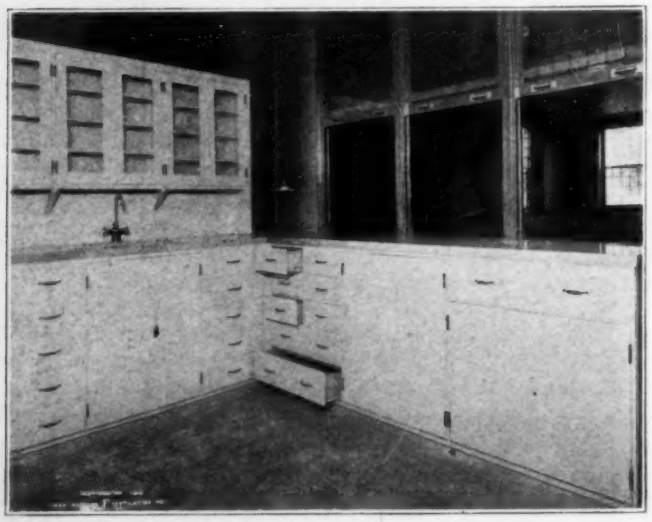

Fig. 18.
Dispensary equipment, Cook County Psychopathic Hospital, Chicago.

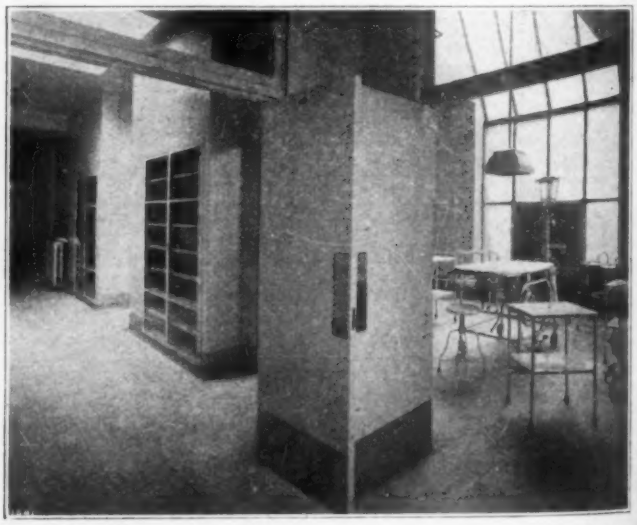

Fig. 19.
Recessed instrument cabinets, Sarah Morris Hospital, Chicago.

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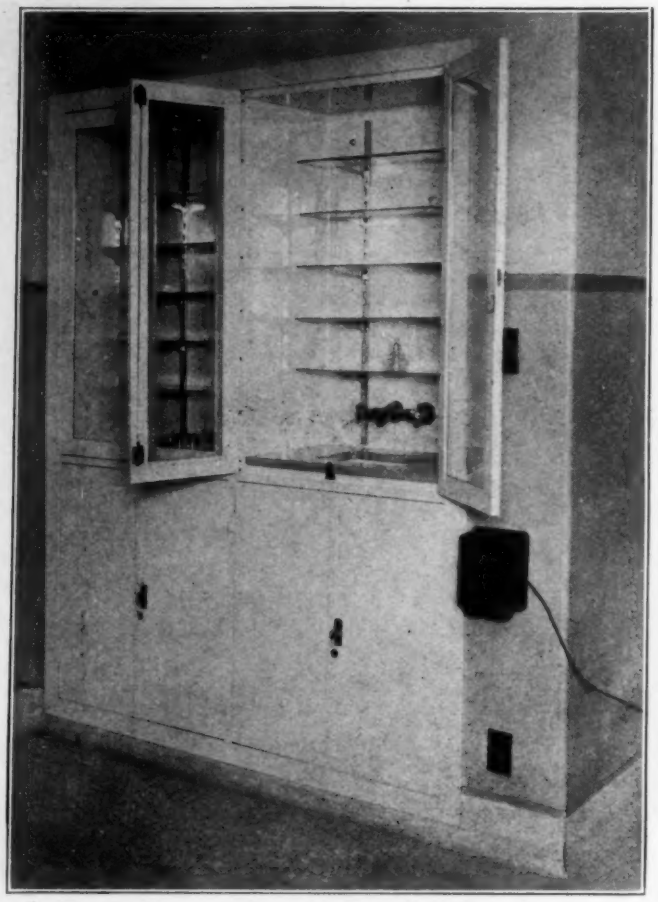

Fig. 20.
Nurses' station cabinet, Illinois Central Hospital, Chicago.

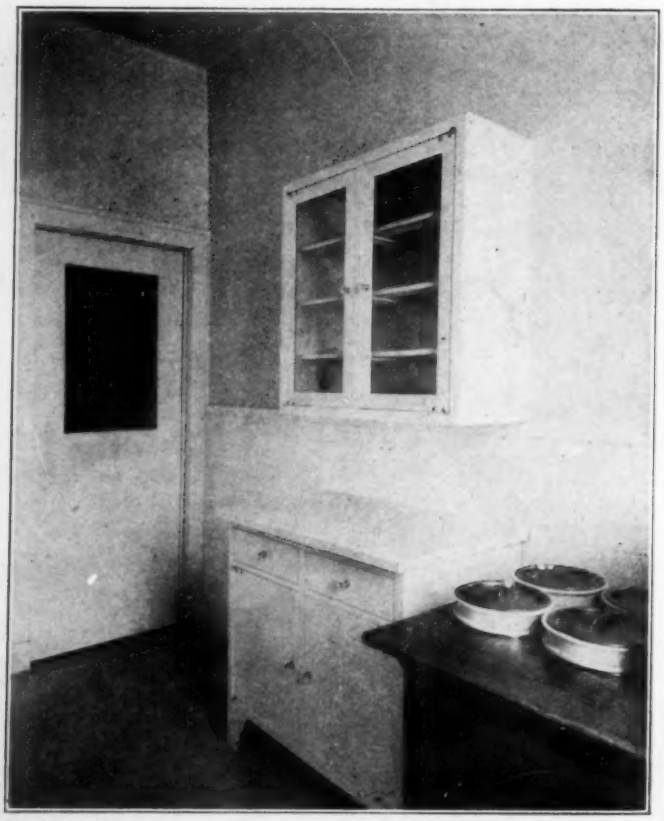

Fig. 21.
Diet kitchen, Mary Imogene Bassett Hospital.

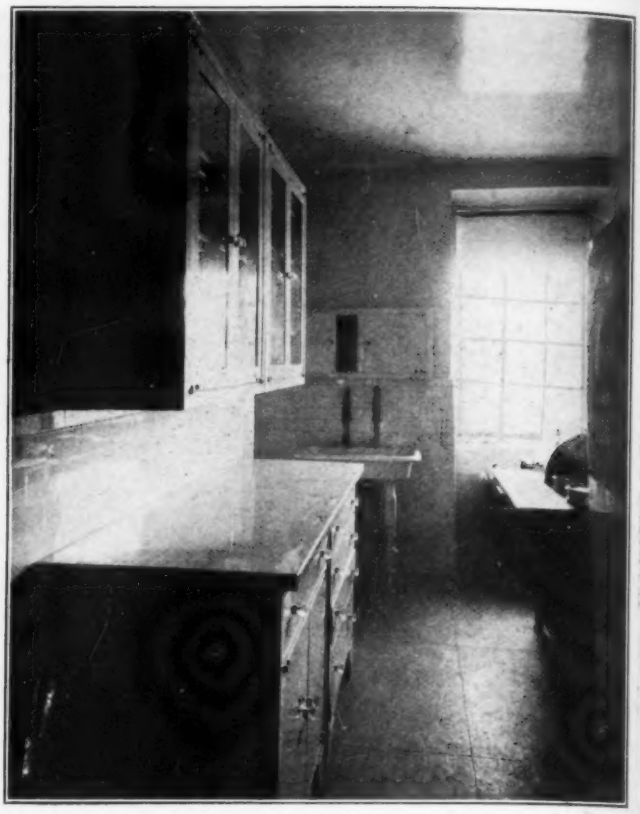

Fig. 22.
Another convenient installation in the Mary Imogene Bassett Hospital.

thoroughly suitable. In Fig. 21 is shown a typical installation with wall cabinet permanently attached and with separate cupboard-table unit.

Fig. 22 shows a similar installation which consists of two wall cabinets and a double unit floor cabinet. Both are finished in white enamel.

The purpose of this article has not been to describe particular installations as much as to emphasize the convenience and practicability of scientfically planned and constructed storage units throughout the hospital for the benefit of those planning new institutions and for administrators of established hospitals.

Much can be accomplished by hospital architects and superintendents, in cooperation with manufacturers of this equipment, in defining various units, partially standardized in size, at least, so as to permit the purchase of these unit sections in such combinations as to meet existing requirements in any institution. Such nominal standardization will result in great economy to the hospital field through the saving of expense of specially constructed equipment.

"One who never turned his back, but marched breast forward;
Never doubted clouds would break,
Never dreamed, though right were worsted, wrong would triumph,
Held we fall to rise, are baffled to fight better, sleep to wake.
So, at noon day in the bustle of man's work-time,
Greet the unseen with a cheer!
Bid him forward, breast and back as either should be,
'Strive and thrive!' Cry, 'Speed, fight on, forever, there as here.'"

—R. Browning.

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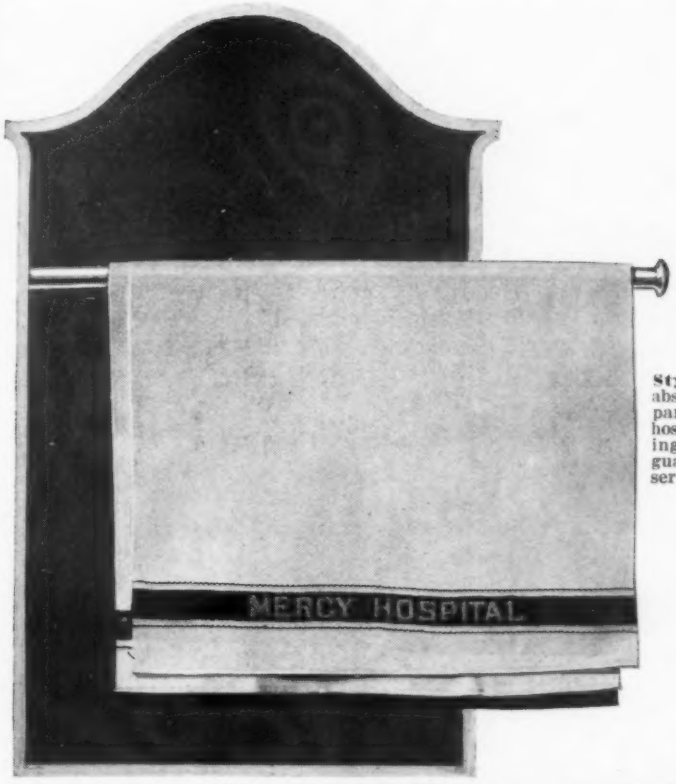

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DISPENSARIES AND OUT-PATIENT DEPARTMENTS

Conducted by MICHAEL M. DAVIS, JR., Ph.D., Executive Secretary Committee on Dispensary Development, United Hospital Fund of New York, and Chief, Service Bureau on Dispensaries and Community Relations of Hospitals, American Hospital Association, 15 W. 43rd Street, New York
and by ALEC N. THOMSON, M.D., Director of Medical Activities, American Social Hygiene Association 370 Seventh Avenue, New York

TENTATIVE STANDARDS IN ORGANIZATION AND MANAGEMENT OF OUT-PATIENT DEPARTMENTS

WITH THE INTRODUCTORY STATEMENT OF ALEXANDER LAMBERT, M.D., CHAIRMAN, EXECUTIVE COMMITTEE, ASSOCIATED OUT-PATIENT CLINICS OF THE CITY OF NEW YORK.

These standards, tentatively drawn up by the executive committee for comment and criticism by physicians, trustees, hospital superintendents and others in New York City, are printed in THE MODERN HOSPITAL at the suggestion of the Associated Out-Patient Clinics, comment and criticism upon them being greatly desired. Such should be sent to Michael M. Davis, Jr., executive secretary, Associated Out-Patient Clinics, 15 West 43rd Street, New York, N. Y.

WE ALL realize that hospitals are institutions which must care for the sick of those families who cannot afford to give as good care in their homes as they can obtain in the hospitals or must care for those who are utterly unable to provide for sickness when it occurs as a calamity in their existence. But must we not look upon the out-patient department, not as an adjunct to feed the hospital and supply material to the hospital beds, but as the connecting link between the community and the hospital, as that portion of the hospital which cares for the sick in their early stages of functional sickness, a place in which they will receive care for their illness before they are so sick that they must return to the hospital and ask for a place in which to lie down and go through their period of incapacity?

In other words, must we not rearrange our present point of view of considering the out-patient department as a mere adjunct of the hospital, to the realization that in the development of the out-patient department lies the real problem today for the growth and improvement of hospital function in its relation to the community? Is not the out-patient department the real connecting link between the hospital and the community and the proper channel through which all the service of the hospital should enter? This seems to your executive committee the real center of its problem, and this it seems is the point of view from which the general standards which have been sent to you should be viewed.

Relation Between Trustees and Medical Staff

The executive committee brings these standards before you for consideration, asking you how best they can bring about their consideration and acceptance by boards of trustees and by medical boards, and their general adoption throughout the city of New York as the standards to be considered and the standards to which all will endeavor to conform. We realize that this brings into consideration a more definite conception in the community of the real relation between trustees and medical boards, and the administrative and technical sides of the hospitals than at present exists. We realize that before the law the trustees are responsible for all things occurring in the hospitals, and we realize that without their generous aid and their interest hospitals cannot exist, because they are the ones who are responsible for the maintenance and the income for the running of the institution, and they are responsible before the law and the public for the persons they permit in the hospitals to give the medical and surgical care to the sick. There must be some authority to decide this, and in the sight of the law it rests upon the trustees. This association has also endeavored to emphasize the fact that the administration in the hospital expressed by the superintendent is necessarily the authoritative expression of the board of trustees, and all administrative and executive work must be vested in the superintendent and his authority be final in the matter; he being responsible only to the trustees.

There exists also the peculiar relation of the medical board to this vested authority. The medical board gives a technical service which cannot be given by anybody else, and the amount and excellence of that service rests in a great measure with the opportunities given its members to develop it. If they are curtailed in laboratory facilities, if they are curtailed in other technical facilities, their service to the sick is just so much diminished and the hospital fails in its duty toward the sick by just so much. The medical men should be held responsible for the way in which they seize upon their opportunities and the amount of use which they make of these opportunities to render their service; and, practically, success or failure in the service given by the hospital to the community rests upon the opportunities given the medical board of trustees, the manner in which they are given, and the manner in which these opportunities are fulfilled and developed. And at this point there is much opportunity at present for the development of clearer understandings and better appreciation of the function of both trustees and medical boards.

That the out-patient department is the real place for future development of usefulness in the hospitals and that it offers today the greatest opportunity for increased development is but little realized by either laymen or the medical profession, and your executive committee desires

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to bring forward this basic proposition for your consideration and asks for your active cooperation and aid in bringing about the realization of this fact in the community.

These general standards are, therefore, the general principles by which this may be brought about and are offered to you with the urgent request that they be considered from this point of view and be considered from every point of view by the boards of trustees represented in this association, and that the boards of trustees of each individual institution consult with their individual medical boards and discuss the pros and cons of the advisability of their application.

Standards for Out-Patient Clinics

Scope of responsibility of out-patient clinic.—It is the responsibility of an out-patient clinic to provide correct diagnosis and adequate treatment for ambulatory patients; to instruct its patients so as to assist in the prevention of disease; to aid in investigation of the causes of disease and of methods of treatment and prevention; and to provide educational facilities and useful experience for physicians, nurses, social workers, and others concerned with the care of the sick, or the promotion of health.

Community relations.—The out-patient clinic must comply with the dispensary law and the regulations of the state board of charities, the city department of health and other public authorities.

Those policies of out-patient service which affect private medical practice should be established and revised as necessary, in consultation with the medical profession of the community through appropriate representatives.

The out-patient clinic should cooperate with charitable societies and other agencies through examination of their beneficiaries and reporting the findings (under proper professional restrictions) to the societies interested.

General organization.—The board of trustees should have an out-patient committee or its equivalent. There should be an out-patient committee of the medical staff. There should be an executive head for the out-patient clinic, to whom all administrative personnel shall be responsible.

Relation to hospital.—The out-patient clinic furnishing diagnosis and treatment of the sick for more than special conditions or minor ailments should be affiliated with a hospital.

When an out-patient clinic is part of a hospital, the executive head of the out-patient department should be responsible to the superintendent of the institution.

Medical organization.—The professional staffs of the hospital and the out-patient department should constitute one organization, not separate staffs.

The director, or responsible head, of each service should be continuously in charge.

Each department of the out-patient clinic should have a chief who should be continuously responsible for carrying out the medical policies and maintaining the working standards of the clinic.

Adequate consultation facilities among the various departments (including refer and transfer of patients) should be available.

In order to promote coordinated medical work, the professional responsibility for each patient at any one time should be fixed upon a single department or physician.

Interns should be assigned a definite service in the clinic, under staff supervision.

Staff conferences for discussion of both ward and clinic cases should be held at regular intervals.

In the out-patient clinic the physician should be relieved as fully as possible of duties not directly concerned with the professional care of the patients. Such non-professional duties should be delegated to trained technical assistants—executive, nursing, social service, clerical, etc.; the number and assignment of such assistants depending upon the volume and the nature of the work.

Facilities, equipment and procedure.—Adequate facilities and equipment should be provided to make possible the satisfactory diagnosis and treatment of patients. The minimum facilities required in the way of space, equipment, conveniences for patients, and the best procedure within the clinic, will vary with the types of disease treated, and should be recommended by the various professional groups or sections of the Associated Out-Patient Clinics.

Admissions.—In determining the admission of individual cases to an out-patient clinic, three factors need to be considered; namely, the income of the patient or family, the size and responsibilities of the family according to a reasonable standard of living, and the character and probable cost of adequate medical treatment for the disease or condition found.

Each institution should formulate its own standards for the admission of patients, depending upon the kind of work done and the policy of the organization.

The gathering of social and financial information necessary to determine admission under the above policy should be performed by a person with training in social work.

Appointment System Recommended

Appointment system.—The admission of patients should be by appointment at a definite day and hour, as a measure conserving the time of physician and patient, and economizing with space and equipment. An appointment system should be devised by each out-patient clinic.

Limitation of numbers.—The number of patients admitted during a given session should be controlled in proportion to the facilities available in relation to space, equipment and personnel. Standards defining the maximum number of patients who should be seen by a physician during a given period should be outlined by the various professional groups or sections of the Associated Out-Patient Clinics.

Fees.—It is desirable that stated fees be charged patients for admission and that additional charges be made for medicine, appliances, and other special procedures or material.

Fees should be remitted in whole or in part to patients unable to pay, unless adequate treatment can be assured through reference of such patients to public agencies.

The fee list should be posted in appropriate places in the institution.

Records.—The medical records should be filed centrally. All the records of each patient should be filed together.

The records of the in-patient and the out-patient should be unified as completely as possible.

Records should not be carried or inspected by patients.

Definite responsibility should be fixed for the supervision of records as to completeness and as to proper care.

Standards for records should be outlined by the appropriate professional group or section of the Associated Out-Patient Clinics.

Social Service.—Social service in a hospital or out-patient clinic is for the purpose of aiding the physician in dealing with those factors in the personality and environment of patients which bear upon the medical situation.

The social service department should be an integral part of the institution.

The head worker or director of the department should

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be responsible to the chief executive of the institution.

There may be an auxiliary or advisory committee composed of lay persons interested in social work, and of members of the medical staff and board of trustees. If there is such a committee, the superintendent should be a member and the head of the social service department should meet with the committee ex officio.

Follow-up.—It is the responsibility of the out-patient clinic to endeavor to retain the patient under treatment until discharged by the physician.

It is the responsibility of the social service department what instructions shall be given patients, to indicate when patients should return, and the conditions under which delinquent patients shall be dropped, or be followed up by mail or by personal visit.

It is the responsibiltiy of the social service department to assist the physician in the instruction of patients, ascertain facts pertinent to their continuance of treatment, maintain an "expected return" index, review the records of patients, and after presentation of facts to the physician, to carry out or to supervise efforts to bring the patients back to treatment.

Results should be reported monthly.

A follow-up system may be applied to an entire out-patient clinic, or only to selected types of cases. It is preferable to employ a thorough follow-up system for a selected disease or group of diseases, rather than a partial or incomplete system to a larger group.

Accounting.—The financial accounts should show (a) the receipts from the various classes of fees for the out-patient clinic as a whole and for each section; (b) receipts from all other sources, as from endowments, public funds, etc., suitably classified; (c) expenses for the clinic as a whole and for each section, classified into the following divisions:

1. Medical payroll.
2. Non-medical payroll.
3. Supplies and material.
4. Overhead expenses.
5. New equipment.

Statistics.—A statistical report covering at least the following items should be made monthly and consolidated annually:

New applicants.
Number of new applicants admitted, classified by departments to which admitted.
Number of applicants rejected.
Total persons admitted, classified by departments to which admitted.
Total number of visits, classified by departments to which made.
Number of transfers and refers among departments.

Annual Report.—The annual report of the hospital should include a report on the out-patient clinic and this should contain (a) statistics, (b) financial facts, (c) a statement of past work and present problems, made by the medical staff, the superintendent, the board of trustees, or any or all of these authorities.

Limit Admissions to Given District

Districting.—It is desirable that each institution should limit admissions to patients residing within a definite area.

This should not prohibit teaching institutions from the admission of cases of importance from the standpoint of medical education, irrespective of residence.

Conference between representatives of institutions should be arranged for the cooperative determination of such areas, based upon the location and facilities of other institutions doing similar work.

Applicants at an out-patient clinic who are found to have been recently under treatment at another agency should, as a general rule, be referred back to that agency.

Adaptation of clinics to clientele.—Evening clinics for working people are desirable in most out-patient clinics.

Such special clinics should be established as meet the peculiar needs of the people or the district served.

Special effort should be made to enable the clinic to deal satisfactorily with persons not speaking English.

Appraisal of results.—There should be periodical surveys of the work of the clinics as a whole and of each section, for the appraisal of results and the improvement of methods.

CONFERENCE ON HOSPITAL SERVICE TO MEET IN MARCH

The annual congress on medical education, licensure, public health and hospitals will be held in the Florentine Room of the Congress Hotel in Chicago on Monday, Tuesday and Wednesday, March 5, 6 and 7, it is announced. The congress will be participated in by the American Conference on Hospital Service, the council of medical education and hospitals and the council on health and public instruction of the American Medical Association, the Federation of State Medical Boards, the Association of American Medical Colleges and the U. S. Public Health Service. One session as usual will be devoted purely to the discussion of hospital questions.

Tuesday afternoon the American Conference on Hospital Service will give the following program:

Introductory remarks by Dr. Frank Billings, president of the American Conference on Hospital Service.

"The Rôle of Non-Medical Clinical Assistants in Hospitals Without Interns," by Dr. S. S. Goldwater, director, and Dr. W. M. Bluestone, assistant director, Mount Sinai Hospital, New York.

"Liability of the Hospital for the Acts of its Servants," by John A. Lapp, director, department of social action, National Catholic Welfare Council, Chicago.

"The Relation of the State University Hospital to the Medical Profession," by Dr. C. P. Howard, professor of medicine, University of Iowa, Iowa City.

Annual report of the Hospital Library and Service Bureau, by the director, Miss Donelda R. Hamlin, Chicago.

On the first day, March 5, during the forenoon the Council on Medical Education and Hospitals, will present a program as follows.

Remarks by chairman, Dr. Arthur Dean Bevan, professor of surgery, Rush Medical College, Chicago.

Report of the secretary, Dr. N. P. Colwell, secretary of the council on medical education and hospitals, Chicago.

Report on investigation of graduate medical schools, Dr. Louis B. Wilson, director of the Mayo Foundation of Medical Education and Research, Rochester, Minn.

"The Medical Curriculum, Coordination of Courses to Increase Efficiency," Dr. E. Stanley Ryerson, secretary, University of Toronto faculty of Medicine, Toronto.

Nursing Education and Service. A report from a special committee of the council on medical education and hospitals, by the chairman, Dr. Robert W. Lovett, professor of orthopedic surgery, Harvard Medical School, Boston.

On Wednesday, March 7, during the forenoon the Council on Health and Public Instruction will present the following program:

Symposium: "The Medical Profession and the Laity":

(a) "From the Standpoint of the Layman," Dr. Walter Dill Scott, president of Northwestern University, Evanston, Ill.
(b) "From the Standpoint of the Health Officer," Dr. Watson S. Rankin, secretary of the North Carolina state board of health, Raleigh.
(c) "From the Standpoint of the Practitioner," Dr. Frederick C. Warnshuis, secretary of the Michigan State Medical Association, Grand Rapids.
(d) "From the Standpoint of the Board of Trustees of the American Medical Association," Dr. Frank Billings, Chicago.

On Wednesday afternoon the program given under the auspices of the U. S. Public Health Service will deal with: the education of sanitarians and the future of public health in the United States. A report of progress from the Committee of Fifteen appointed by Surgeon General Cumming of the United States Public Health Service at the Conference held in Washington, March 14, 1922 will be given. Tuesday evening the Federation of State Medical Boards will hold its annual dinner followed by its regular executive session.

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OCCUPATIONAL THERAPY AND REHABILITATION

Conducted by HERBERT J. HALL, M.D., Devereux Mansion, Marblehead, Mass., and MRS. CARL HENRY DAVIS, Advisor in Occupational Therapy, 825 Lake Drive, Milwaukee, Wis.
Co-Editors: LORING T. SWAIM, M.D., 372 Marlboro St., Boston Mass., and MISS MARY E. P. LOWNEY, Room 272, State House, Boston, Mass.

TREATMENT OF DISEASE BY EMPLOYMENT AT ST. ELIZABETH'S HOSPITAL*

APPLIED work is of undoubted advantage in the treatment of a psychotic case. Idleness is a great factor in the rapid deterioration of mental patients, the prevention of which may result in the patient becoming a useful institutional citizen, making an adjustment to the hospital level, even though he shows but little improvement from a psychiatric standpoint.

The primary object, especially in the introverted or thoroughly hospitalized patient, is to develop the habit of application. In these cases, the "product" of occupational therapy is the "effect upon the patient." To establish this habit the simplest occupations are used at St. Elizabeth's Hospital Washington, D. C., such as:—

Men—Winding roving, raveling burlap, sandpapering, tearing carpet rags and braiding them for rugs, hooked and braid rugs, plain basketry, weaving, and color work.

Women—Winding, tearing, and sewing carpet rags, color work, plain sewing raffia and pine needle work.

Greater Therapeutic Value in Useful Articles

The habit of application or willingness to work established, the patient is sent to an intermediate class. While in the primary classes and classes of very disturbed patients the "effect" upon the patient is considered sufficient "product"; such is not the case in the higher classes. It is now believed that what is worth doing at all is worth doing well, and that practical, well-made articles have a greater therapeutic value than a useless, poorly made article.

These classes have prescribed work, as follows:

Men—Hooked and knotted rugs, macrame, door mats, fly swatters, tying heddles, fancy basketry, plain weaving with special attention given to color combinations.

Women—Plain sewing and needle work, crocheting, color work, raffia basketry, weaving, petite point and sandal making.

The advanced ward classes do—

Men—Cord knotting (hammocks, tennis nets, basket ball nets), rake knitting, chair caning, rush seating, toy making, plain linen, Indian and rug weaving where design and color are emphasized.

Women—Crocheting, embroidery, plain sewing, linen, Indian and rug weaving, raffia and pine needle basketry and color work.

After leaving the ward classes, the patient's desires are given much weight in future assignment as his willingness to cooperate is a prime necessity. It has been found that markedly introverted patients, who could not be induced to work on the wards where there were many idle patients, have done very good work with improvement in dress, habits and behavior, when sent to a classroom in which everyone was employed.

Occupation Sometimes Destroys Delusions

In certain cases, the delusions of the patient have been made the prime consideration in assigning occupational therapy. For instance, one patient who believed that he was a great inventor—that he had invented a combination aeroplane and submarine—was sent to the shop and assigned a bench, tools and material. He was given several models of aeroplanes and told to make his models. About ten days later he stated to the doctor that the thing was all a mistake, that he wasn't an inventor and could not produce his aerial-submarine. He immediately discarded all his previous ideas in this direction and proceeded to make three original toys, which had a salable value.

The next step is shop work, as follows:

Men—Brush making, wheel pottery, willow basketry and willow ware (which is a continuation of reed basketry, as taught on the wards, and will lead to wicker furniture), advanced toy making and toy furniture (which leads to simple bench and cabinet work and wood turning), all kinds of plain and pattern weaving, such as rugs, carpets, linen towels, upholstery and cloth with complicated designs and color schemes, and Indian weaving.

Women—Very advanced needle and color work, pottery, design and painting, and weaving, as above. Cloth and carpet looms, tables, cabinets, work benches, and other equipment needed in the occupational therapy department are made in these shops.

Two thousand four hundred four articles were sent to the general storeroom for hospital use during the month of October, 1922, from a group of eight classes (four men's and four women's). This does not include the articles awarded to patients in these classes during October.

Need Constant Medical Supervision

Those who are capable of further advancement are promoted to the trade industrial advanced classes (advanced classes in wood and cabinet work and wood turning, where power machines are used), agriculture, poultry raising, academic, commercial, and drafting, or to placement work in hospital departments, as the condition of the individual case may warrant.

Patients assigned for occupational therapy should have constant medical supervision that changes in the patient's

*From a recent report of St. Elizabeth's Hospital, Washington, D. C.

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What may the patient have to eat?

IN supplying what a patient needs, may have, and will like, the prepared cereal food, Grape-Nuts, has for many years been found of great value.

The long, slow baking of the wheat and malted barley in Grape-Nuts, partly changes the starches of the grain to dextrin and maltose. This partial predigestion greatly increases the availability of the food to a delicate stomach. Authoritative tests by independent investigators have shown that the carbohydrates of Grape-Nuts are soluble to an exceptional degree; and the nourishment is readily assimilated without contributing to putrefactive conditions in the intestine.

Grape-Nuts includes with the proteins and carbohydrates a supply of essential mineral salts, vitamin B (demonstrated by thorough laboratory tests in feeding) and a considerable bran roughage—all from the grain.

With cream or milk to supply fat, and giving a further contribution of calcium and vitamins A and C, a serving of Grape-Nuts is exceptionally nourishing.

Grape-Nuts is delightfully crisp and has a most appetizing flavor. It is convenient for sick room use, because ready to serve direct from the package; a small portion constitutes a serving. Grape-Nuts can be obtained from any grocer.

Samples of Grape-Nuts for individual and clinical examination and trial will be furnished free of charge to any physician or nurse who will write for them.

"There's a Reason"

for GRAPE-NUTS

POSTUM CEREAL HEALTH PRODUCTS COMPANY

Made by Postum Cereal Company, Inc., Battle Creek, Michigan

mental condition may be noted and advantages taken of them. It is also necessary to follow up these cases constantly in a systematic way, or large numbers will drop the work for various reasons. A medical follow-up makes possible vocational advice to the individual upon his discharge from the institution.

THE ROLL CALL

Minnesota

The following institutions in Minnesota have added occupational therapy to their course of treatment:

State Sanatorium, Ah-gwah-ching.
Glen Lake Sanatorium, Oak Terrace.
Nopeming Sanatorium, Nopeming.
St. Paul City and County Hospital, St. Paul.
Minneapolis General Hospital, Minneapolis.
Ottertail County Sanatorium, Battle Lake.
Mineral Springs Sanatorium, Cannon Falls.
Sunnyrest Sanatorium, Crookston.
Lake Julia Sanatorium, Puposky.
Sand Beach Sanatorium, Lake Park.
Buena Vista Sanatorium, Wabasha.
Riverside Sanatorium, Granite Falls.
Southwestern Sanatorium, Worthington.
Oakland Park Sanatorium, Thief River Falls.
Fair Oaks Lodge Sanatorium, Wadena.
Deerwood Sanatorium, Deerwood.
Thomas Hospital, Minneapolis.
U. S. Veterans Hospital No. 65, St. Paul.
U. S. Veterans Hospital No. 68, Minneapolis.
Hopewell Hospital, Minneapolis.
State Insane Hospital, Fergus Falls.
State Insane Hospital, St. Peter.
State Insane Hospital, Rochester.
State Hospital for Crippled Children, Phalen Park, St. Paul.

Ontario

The following officers have been recently elected by the Ontario society:

President, Miss Helen DeLaport; vice president, Miss Helen Mowat; corresponding secretary, Miss Evelyn Eastmure; recording secretary, Miss Aileene Marks; treasurer, Miss Kathleen O'Grady.

Fees are to be $2 for active members and $5 for sustaining members, as formerly. As a result of the publicity campaign carried on in June the society has been able to open a curative work shop consisting of two large rooms and an office at 21 So. Mary Street. A committee of five had charge of the decorating, furnishing and equipment of the rooms. The society will take private pay patients and mental defectives and nerve cases at the beginning. The Hamilton Branch of the society recently has sent a splendid report of its work and progress. This society financed an aide at the Hamilton General Hospital, and the work was so much appreciated that an aide was appointed to the permanent staff. The London Branch was asked to arrange a demonstration of occupational therapy for the meeting of the American College of Surgeons held in that city.

Pennsylvania

An occupational therapy department recently was opened at the Children's Hospital, Philadelphia, under Miss M. M. Grebe, graduate of the Philadelphia School of Occupational Therapy.

On December 5 a tea and sale of work done by graduates of the school and their patients were held at the Philadelphia School of Occupational Therapy, 2200 DeLancey Place. The entertainment was arranged by Miss Mary Pardee Earle, secretary of the board and a graduate of the school, with the cooperation of the members of the hospitality committee and other members of the board and was primarily for the purpose of publicity. There was a large attendance and much interest was expressed by the guests in the work shown.

The Association of Aides met on November 27 at the Philadelphia School of Occupational Therapy with Miss Ida F. Sands, president, in the chair. A short business meeting was held at which time the name, scope and purpose of the association was discussed and the following committee was appointed to report on and to make suggestions covering these points: Miss Katherine I. Wellman, Miss Helen Campbell and Miss Florence Wellsman Fulton, chairman. The program for the evening was the discussion of the various materials to be used in basketry, the best places at which to purchase materials and other matters of interest in connection with this craft. Mr. Frank Lane, head occupational therapist, Philadelphia Hospital for Mental Diseases, Byberry, brought in some willow which is raised at that institution and explained how it is planted, cut and used. A number of very interesting baskets which had been made by the aides or their patients were displayed. It is the intention of the president, assisted by the program committee, to make these meetings of practical interest to all who are in the work and each month it is proposed to discuss one of the crafts in general use.

Washington, D. C.

At the annual meeting of the District of Columbia Association November 7, a committee with Mr. C. C. Dunn as chairman was chosen to revise the constitution and make any suggestions for amendments. Foremost among the amendments was the change of name of the society from the District of Columbia Occupational Therapy Association to the Occupational Therapy Association of the District of Columbia.

The following officers were chosen: president, Miss Miriam Morriss, supervisor of aides, U. S. Veterans' Bureau; vice president, Miss Alberta Montgomery, supervisor of aides, Walter Reed, General Hospital; corresponding secretary, Miss Emily L. Haines; secretary-treasurer, Miss Viola Cushman, director of occupational therapy, Tuberculosis Hospital.

The five directors are: Mr. C. C. Dunn, St. Elizabeth's Hospital; Mr. J. Neligh, Neighborhood House; Miss Edda Duggan, supervisor of aides, Veterans' Bureau General Hospital, No. 32; Mrs. Emy Sommers, Walter Reed Hospital; Miss Ellen Canton, St. Elizabeth's Hospital.

Wisconsin

The Wisconsin Society held its annual meeting on November 23. The growth of the organization was apparent as 29 members had been present the previous year and this year not only were there 75 in attendance but this dinner was the second gathering of that size within six weeks. Miss Alfred Benson of Chicago addressed the meeting on the work for "The Shut In." Five minute addresses followed on various new phases of occupational therapy.

The Junior League of Milwaukee gave its annual play three nights early in December to raise money to carry on the occupational therapy at the Curative Workshop, Columbia and Children's Hospitals, and work for the shut-ins. During the intermission pictures were shown of patients at work in occupational therapy departments.

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FOREIGN CORRESPONDENCE

LORD DAWSON URGES FOUNDING OF HOSPITAL FOR PERSONS OF MODERATE MEANS

(By Our London Correspondent)

THE new session of the Medical Society of London was opened on the evening of October 16, 1922 by the recently appointed president for the medical year, Lord Dawson, a prominent London physician. The session was interesting not only on account of the subject matter of the address and its excellent delivery, but also because it marks the society's entrance upon the 150th year of its existence. It is the oldest of the metropolitan associations of its kind. When this society was founded the population of London was under 700,000 and the city contained 774 general medical practitioners, the old rough proportion of one doctor to 1,000 persons prevailing; at that time the Royal College of Physicians of London was composed of forty-three fellows and seventy-four licentiates.

Lord Dawson in a very able and analytical address dealt with the prevalence of neuroses in these days and their treatment by suggestion.

The growth of medical knowledge and the increasing number of sciences associated with medicine, he declared, were making diagnosis and treatment rest on collective rather than on individual efforts. That necessity for collective efforts postulated institutions specially equipped as hospitals and clinics, with laboratories and accessories, and such institutions should be properly distributed over the country, if the best that medicine could give was to be available. The growth of such institutions made all the more important that those first established should be of a good pattern. The more medical science advanced and the more expensive it became, the fewer were the people who enjoyed its benefits. The public looked to doctors for the remedy and that was to be found in cooperative endeavor.

As for the management of hospitals, the speaker submitted three propositions for discussion: (1) Such institutions should be run on economic but not on commercial lines. The laity should cooperate in their administration, while the technical direction should be under a medical committee. (2) Provision should be made for a proportion of the patients who could not defray the cost of their treatment, professional fees being included in, or independent of, the charges for the institution in accordance with local arrangements. (3) The patients attending such institutions should retain their own doctors, who would thus be brought into direct connection with specialist and consultant colleagues.

The new institutions, the speaker went on to say, should not be annexes to the existing hospitals, which are usually in densely populated neighborhoods, but in places with open space around them. They should be suitable for the man of £500 ($2,500) or £600 ($3,000) a year. How could that be done? The only solution, it seemed to him, was some system of insurance; not state insurance, for that was neither advisable nor feasible. Could not the large insurance companies take the matter up? It was for the medical profession to hammer out the best line of development.

Sir Humphrey Rolleston, president of the Royal College of Physicians, said that one of the difficulties to be faced was the change in character of disease during a single lifetime. How much of it was due to altered conditions of life, say in New York and London? Might not the advance of nervous disease be apparent, owing to better education? He had to confess that the running of health institutions for people of moderate means was a most difficult problem.

* * * * *

A great deal of the financial stress of the London hospitals is due to lack of organization, especially to lack of cooperation. The fact is emphasized by the report issued recently by Sir Napier Burnett, director of hospital services, Joint Council of the Order of St. John and the British Red Cross Society. This report deals with the voluntary hospitals, excluding London, and it shows that the majority of these hospitals were able to pay their way for the first time since the war. The workmen's contributions have been very successful. Your correspondent was in the city of Norwich a few weeks and learned from Dr. Samuel Barton, one of the originators of the workmen's contributory scheme in Norwich itself and in Norfolk the county of which it is the capital, that in every part of Norfolk this scheme had "caught on." Norfolk it may be said is purely agricultural and the earnings of the laborers are small, but the result of the plan has been most successful. Norwich hospital is paying its way and getting out of debt. The same can be said of hospitals in all parts of the country, London excepted.

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There has been a great stir recently throughout Great Britain owing to the reported mismanagement of institutions for the insane and mentally defective. A Dr. Mon-

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tagu Lomax for some months past has been contributing articles to the lay and medical press in which be brought grave charges against the conduct of asylums. Indeed in these articles, a series of which have been contributed and are being contributed to the *Medical Press and Circular*. He brought numerous specific charges of inhuman and improper treatment of insane persons in asylums. Dr. Lomax was himself for a time in the asylum medical service and in July of last year published a book entitled "Experiences of an Asylum Doctor" in which strong accusations were made as to the scandalous manner in which inmates of the institutions for the insane and mentally defective were treated.

The other day there appeared the eighth annual report of the board of control, the bureau upon which rests the responsibility for the treatment of lunatics and mental defectives. It deals with the year 1921, which as a writer in the *Morning Post*, an influential daily journal, truly says was a stormy year for all those concerned in the management of asylums.

Money was lacking on the one hand, the financial conditions compelled local authorities to check expenditure wherever possible, and on the other special circumstances combined to focus public attention upon any defaults in the treatment of the patients or the conditions under which they were living, the report brings out. The cost of maintenance of the hospitals remained high, while at the same time there was a large increase in the number of attendants and nurses owing to reduced hours of duty, and this larger service was placed on a higher scale of pay. According to the report which does not attempt to answer the charges, there is a very considerable increase in numbers of the insane and mentally defective. The main factor in the increase in numbers during 1921 was the low number of deaths in the institutions for the insane as although the changes involved by slightly increased admissions nearly balanced each other, the admissions showed a large excess over the discharges and deaths taken together. As the number in institutions comprise over 80 per cent of the total number of notified insane, they obviously exercise a preponderating influence.

BEING FAIR TO YOUR FEET

There are some of the most important shoe sins:—(1) Arches, (2) curving inner edges, (3) pointed toes, (4) high heels, (5) tight fitting, (6) poor fitting.

And these are a few of the impairments they produce:—(1) Bad posture, (2) weak abdominal muscles resulting from bad posture, (3) fatigue, (4) nervousness, (5) deformation of the foot, (6) impaired circulation.

The day will come when the narrow, high-heeled shoe will be unanimously derided and will look as out of place as would a crinoline and hooped skirt in the subway. The untramelled toes of the baby and primitive man are the perfect models. If the modern shoe was even beautiful since it cannot be comfortable, our suffering might not seem so absurd. But just watch people crossing a street, and mentally compare their staccato hops and affected jerks with the rhythmic swing of the savage. Grace is his because he has flexible, broad and strong support for his weight. As you ride down town in the car, take a shoe census, and see how many well-shaped feet you see and how many well-fitting shoes.—*From the Health Letter of the Life Extension Institute, New York.*

My idea of man's chief end was to enrich the world with things of beauty, and have a fairly good time myself while doing so.—R. L. Stevenson.

METHODIST HOSPITALS ASSOCIATION TO CONVENE

The National Methodist Hospitals and Homes Association will hold its fifth annual meeting in the auditorium of the Methodist Book Concern in Chicago on February 14-15, it is announced. All Methodist hospitals and homes for aged and children are expected to send representatives to the meeting.

E. S. Gilmore, superintendent of Wesley Memorial Hospital, Chicago, is president of the association and will preside at the sessions. Addresses will be made by Dr. Frederick W. Slobe of the American College of Surgeons, Dr. Hastings Hart of the Rockefeller Foundation and Dr. N. E. Davis of Chicago.

The complete program follows:

WEDNESDAY MORNING, FEBRUARY 14

Devotions—Conducted by the Rev. John Thompson, D.D., pastor of Chicago Temple.

Reading of minutes, W. H. Jordan, secretary.

Address—"How to Finance Your Institution: Maintenance, Expansion and Endowment," S. W. Robinson, executive secretary, Methodist Home for Children, Williamsville, N. Y.

Discussion.

Address—"Better Homes for the Aged," E. L. Strecker, Home for the Aged, Cincinnati, Ohio.

Discussion.

Address—"To What Extent is the Board of Trustees Responsible for the Medical Care of Patients," Dr. Frederick W. Slobe, Department of Hospital Standardization, American College of Surgeons, Chicago.

Discussion—Led by C. C. Hurin, superintendent, Iowa Methodist Hospital, Des Moines, Iowa.

WEDNESDAY AFTERNOON, FEBRUARY 14

Devotions.

Address—"Organizations in the Light of the Research Conducted by the Rockefeller Foundation," Dr. Hastings Hart, Rockefeller Foundation, New York.

Discussion.

Group Meetings:

(1) Hospital Group, led by G. T. Notson, superintendent, Methodist Hospital, Sioux City, Iowa.
(2) Homes for Aged, led by J. W. Irish, executive secretary, Methodist Hospital, Madison, Wis.
(3) Homes for Children, led by J. B. Jones, field secretary, Children's Home, Worthington, Ohio.

WEDNESDAY EVENING, FEBRUARY 14

Devotions.

Moving pictures with films of hospitals and homes, J. E. Lacount, field secretary, New England Deaconess Hospital, Boston, Mass.

THURSDAY MORNING, FEBRUARY 15

Devotions.

Address—"Discoveries Resulting from a Study of the Survey of Hospitals and Homes," N. E. Davis, corresponding secretary, Board of Hospitals and Homes, Chicago.

Discussion.

Business.

Reports of officers and committees.

Election of officers.

THURSDAY AFTERNOON, FEBRUARY 15

Devotions.

Round table discussion, led by J. E. Diekmann, president, Bethesda Hospital, Cincinnati, Ohio.

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